



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

January 6, 2015

F. J. Buri
Alliant Energy Corporation
jackburi@alliantenergy.com

Re: Alliant Energy Corporation

Dear Mr. Buri:

This is in regard to your letter dated January 6, 2015 concerning the shareholder proposal submitted by the New York State Common Retirement Fund for inclusion in Alliant Energy's proxy materials for its upcoming annual meeting of security holders. Your letter indicates that the proponent has withdrawn the proposal and that Alliant Energy therefore withdraws its December 22, 2014 request for a no-action letter from the Division. Because the matter is now moot, we will have no further comment.

Copies of all of the correspondence related to this matter will be made available on our website at <http://www.sec.gov/divisions/corpfin/cf-noaction/14a-8.shtml>. For your reference, a brief discussion of the Division's informal procedures regarding shareholder proposals is also available at the same website address.

Sincerely,

Adam F. Turk
Attorney-Adviser

cc: Patrick Doherty
State of New York
Office of the State Comptroller
pdoherty@osc.state.ny.us



January 6, 2015

VIA EMAIL

Office of Chief Counsel
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Email Address: shareholderproposals@sec.gov

F. J. Buri
Corporate Secretary and
Assistant General Counsel
Alliant Energy Corporation
4902 North Biltmore Lane
Madison, WI 53718
Office: 608.458.5562
Fax: 608.458.0135
jackburi@alliantenergy.com

Re: Shareowner Proposal Submitted by the New York State Common Retirement Fund Pursuant to Rule 14a-8 Under the Securities Exchange Act of 1934, as Amended

Dear Sir or Madam:

In a letter dated December 22, 2014, Alliant Energy Corporation (the “*Company*”) requested that the staff of the Division of Corporation Finance (the “*Staff*”) of the Securities and Exchange Commission (the “*Commission*”) concur with the Company’s view that, for the reasons stated in the request, a shareowner proposal submitted to the Company by the New York State Common Retirement Fund (the “*Proponent*”) in a letter dated December 1, 2014 (the “*Proposal*”) may be omitted from the Company’s proxy materials for its 2015 annual meeting of shareowners.

Enclosed as **Exhibit A** is correspondence from Mr. Patrick Doherty, dated January 5, 2015, withdrawing the Proposal on behalf of the Proponent. In reliance on the withdrawal of the Proposal by the Proponent, the Company hereby withdraws its December 22, 2014 no-action request relating to the Company’s ability to exclude the Proposal pursuant to Rule 14a-8 of the Securities Exchange Act of 1934, as amended. A copy of this letter is being provided to the Proponent.

If you have any questions concerning any aspect of this matter or require any additional information, please feel free to contact me at (608) 458-5562. Please email a response to this letter to JackBuri@alliantenergy.com.

Sincerely,

A handwritten signature in black ink, appearing to be "FJB", written over a horizontal line.

F. J. Buri
Corporate Secretary and Assistant General
Counsel

Enclosures

cc: Patrick Doherty, Director of Corporate Governance
State of New York Office of the State Comptroller
59 Maiden Lane-30th Floor; New York, NY 10038
pdoherty@osc.state.ny.us

Exhibit A

Withdrawal Correspondence

THOMAS P. DIANA
STATE COMPTROLLER



STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

PENSION INVESTMENTS
& CASH MANAGEMENT
633 Third Avenue-31st Floor
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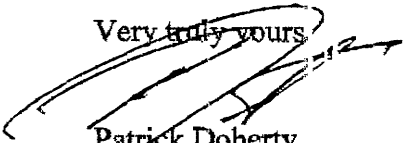
January 5, 2015

Mr. F.J. Bury
Corporate Secretary
Alliant Energy Corporation
4902 North Biltmore Lane
Madison, WI 53718

Dear Mr.Buri:

On the basis of the commitments contained your letter of January 5 to provide a report to shareholders on Alliant Energy's actions with regard to greenhouse gas emission reduction scenarios, I hereby withdraw the resolution filed with your company by the Office of the State Comptroller on behalf of the New York State Common Retirement Fund.

Very truly yours,


Patrick Doherty
pd:jm
Enclosures



F. J. Buri
Corporate Secretary and
Assistant General Counsel
Alliant Energy Corporation
4902 North Biltmore Lane
Madison, WI 53718
Office: 608.458.5562
Fax: 608.458.0135
jackburi@alliantenergy.com

December 22, 2014

VIA EMAIL

Office of Chief Counsel
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Email Address: shareholderproposals@sec.gov

**RE: Shareowner Proposal Submitted by the New York State Common Retirement Fund
Pursuant to Rule 14a-8 Under the Securities Exchange Act of 1934, as Amended**

Dear Sir or Madam:

Alliant Energy Corporation (the “**Company**”) respectfully submits this letter pursuant to Rule 14a-8(j) under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), to notify the Securities and Exchange Commission (the “**Commission**”) of the Company’s intention to exclude from the Company’s proxy materials for its 2015 annual meeting of shareowners (the “**2015 Proxy Materials**”) a shareowner proposal submitted to the Company by the New York State Common Retirement Fund (the “**Proponent**”) in a letter dated December 1, 2014 (the “**Proposal**”). The Company requests confirmation that the Commission’s staff (the “**Staff**”) will not recommend to the Commission that enforcement action be taken against the Company if the Company excludes the Proposal from its 2015 Proxy Materials for the reasons set forth in this letter. A complete copy of the Proposal and related correspondence with the Proponent are attached as **Exhibit A**.

Pursuant to Rule 14a-8(j), the Company has filed this letter with the Commission no later than eighty calendar days preceding the date that the Company expects to file with the Commission its definitive 2015 Proxy Materials. The Company currently intends to file such definitive 2015 Proxy Materials on or about March 24, 2015. Also, in accordance with Rule 14a-8(j), concurrently with the electronic mail transmission of this letter to the Commission, the Company sent to the Proponent by overnight courier at the address indicated by the Proponent on the cover letter accompanying the Proposal a copy of this letter with all enclosures to notify the Proponent of the Company’s intention to exclude the Proposal from the 2015 Proxy Materials.

The Proposal requests the Company to prepare and publish a report on greenhouse gas (“**GHG**”) emission reduction scenarios. The resolution portion of the Proposal is as follows:

RESOLVED:

Shareholders request that the Company prepare and publish a report, reviewed by a board committee of independent directors, describing how it can fulfill medium and long-term greenhouse gas emission reduction scenarios consistent with national and international GHG goals, and the implications of those scenarios for regulatory risk and operational costs. The report should be published by September 1, 2015 at reasonable cost and omitting proprietary information.

Summary of Bases for Exclusion

The Company believes that the Proposal can be properly excluded from the 2015 Proxy Materials pursuant to:

- Rule 14a-8(i)(10) because the Company has already substantially implemented the Proposal; and
- Rule 14a-8(i)(7) because the Proposal deals with matters relating to the Company’s ordinary business operations.

Analysis

I. The Company can exclude the Proposal under Rule 14a-8(i)(10) because it has been substantially implemented.

Rule 14a-8(i)(10) permits the exclusion of a proposal that the Company has already substantially implemented. In reviewing exclusion of proposals under this Rule, the Staff does not require that a company have “fully effected” the proposal in order to permit exclusion, only that the action be “substantially implemented.” *Exchange Act Release No. 40018* (May 21, 1998) (the “**1998 Release**”) and *Exchange Act Release No. 20091* (Aug. 16, 1983) (the “**1983 Release**”). Specifically, the Staff has concurred in a company’s exclusion of a proposal where the company’s “policies, practices and procedures, as well as its public disclosures, compare favorably with the guidelines of the proposal.” *Duke Energy Corp.* (Feb. 21, 2012). *See also Texaco, Inc.* (Mar. 28, 1991) (“a determination that the Company has substantially implemented the proposal depends upon whether its particular policies, practices and procedures compare favorably with the guidelines of the proposal.”)

In *Duke Energy Corp.*, the Staff concurred that the company had substantially implemented a proposal requesting that a committee of independent directors assess actions the company was taking to reduce GHG and other air emissions by providing comprehensive energy efficiency and

renewable energy programs and prepare a report on plans to achieve this goal. The company had provided information in its annual report on Form 10-K and an annual sustainability report on regulatory targets for renewable generation sources, its corporate sustainability goals and the steps the company was taking to achieve those goals. The company had not complied with every aspect of the proposal, as highlighted in a letter to the Staff from counsel for the proponent. The company had not established a board committee to complete the assessment that was requested, and the proponent argued that the company's public disclosures did not address a comprehensive approach to achieving energy efficiency and renewable energy programs. *See also Wal-Mart Stores, Inc.* (Mar. 10, 2008) (concurring that the company could exclude a proposal requesting a global warming report where the company had published a sustainability report that addressed some, but not all, of the issues discussed in the proposal); *Dow Chemical Co.* (Mar. 5, 2008) (same).

The Proposal requests that the Company prepare a report, reviewed by a board committee of independent directors, regarding medium and long-term GHG emission reduction in accordance with various U.S. regulatory goals that will apply to the Company and other international aspirational goals and commitments and the implications of these reductions for regulatory risk and operational costs. The supporting statement accompanying the Proposal states that the report should describe potential commitments through which the Company could reduce its emissions below 2005 levels by 40% by 2030 and 80% by 2050 and "compare costs and benefits of more aggressive deployment of additional zero-carbon energy generation strategies compared with current commitments and plans." The supporting statement specifies that zero-carbon strategies "would not generate significant GHG, e.g., solar or wind power, or energy efficiency." The Company already makes public disclosures regarding its past actions and future plans for compliance with established and expected regulatory requirements, including the EPA Clean Power Plan (defined below) that is projected to result in future reductions of carbon emissions from the power sector below 2005 levels by 30% nationwide by 2030, as well as regarding analysis of the costs and benefits of its existing "zero-carbon" and other efforts to reduce GHG emissions.

The Company has provided information requested by the Proposal in its Annual Report on Form 10-K for the year ended December 31, 2013 (the "**2013 Form 10-K**"), its annual Environmental Report, most recently published in November 2014, and comments it recently submitted (the "**Comment Submission**") on the EPA's notice of proposed rulemaking for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (commonly known as EPA's "**Clean Power Plan**"). A copy of the most recent Environmental Report is available at alliantenergy.com/environmentalreport, and is attached as **Exhibit B**. The Comment Submission is publicly available at <http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2013-0602-22934>, and is attached as **Exhibit C**. The Company's public disclosures include descriptions of how the Company can fulfill GHG emission reduction scenarios in the following ways:

- The Company's 2013 Form 10-K includes on pages 41-45 an overview of the Company's strategic plan, through which the Company seeks to provide safe and reliable electricity and natural gas to customers at competitive and predictable rates, while focusing on a balanced and flexible portfolio of energy resources and preparing for a potentially carbon-constrained environment in the future. This strategic plan incorporates the understanding that the Company will likely be operating in a regulatory environment that requires reductions in GHG emissions.
- Pages 43 and 46-47 of the Company's 2013 Form 10-K include a discussion of the Company's environmental compliance plans, which have been developed by the Company to ensure cost-effective compliance with current and proposed environmental laws and regulations, including anticipated GHG emission restrictions. This discussion notes that these compliance plans will be updated as deemed necessary to address external factors such as developments related to environmental regulation, and availability and cost effectiveness of different emission reduction technologies.
- Page 47 of the Company's 2013 Form 10-K includes a discussion of the Company's energy efficiency programs, through which the Company helps customers reduce their energy usage through efficient equipment, products and practices.
- The Environmental Report contains information regarding the Company's efforts to support development of renewable energy resources and promote energy efficiency, including discussion of customer-generated renewable energy resources on pages 4 through 6, discussion of energy efficiency projects on pages 11, 13 and 14, and discussion of Company-owned and purchased wind generation on pages 16 and 17.
- Section II of the Comment Submission, on pages 5-6, describes the actions that the Company has taken and is taking to reduce GHG emissions, including fuel-switching at, and retirement of, less efficient coal-fired generating units, efficiency improvements, generation and purchase of energy from renewable resources (including solar and wind) and energy-efficiency programs. These actions are transforming and will continue to transform the Company's generation fleet to one that is more efficient, with lower GHG emissions that align with the Clean Power Plan and proposed national goals for 2030 emission reductions.

The Company's public disclosures include discussion of the implications of GHG emission reduction scenarios for regulatory risk and operational costs in the following ways:

- The Company's 2013 Form 10-K includes, on page 46, estimates of past and future capital expenditures, through 2017, for certain emission controls projects included in the Company's current environmental compliance plans.

- The risk factors included in the Company's 2013 Form 10-K on pages 24-25 address risks faced by the Company relating to compliance with environmental laws and regulations and potential GHG emission restrictions.
- The Comment Submission states on page 3 that the Company's investments to achieve a responsible resource future exceed \$3 billion since 2005 and that the Company expects to invest an additional \$3 billion from 2015 through 2023 to further transform its resource portfolio.
- Throughout the Comment Submission, the Company discusses its analysis of, and comments on, the ways in which the EPA proposes to measure and regulate GHG emissions, highlighting regulatory risks such as appropriate measurement of emission reduction goals and sufficient time to prepare for compliance.

The Company's public disclosures include discussion of commitments the Company could make above and beyond compliance with regulatory requirements in the following ways:

- In the Comment Submission, the Company states that it has already reduced carbon dioxide emissions by approximately 15% below 2005 levels, an achievement that is not required by any of the goals or commitments identified by the Proposal.
- The Company notes in Section X of the Comment Submission on pages 43-44 that energy resources and infrastructure are deployed over a long planning cycle, and realistic effective dates for reduction goals are needed due to permitting, regulatory approvals, project development and possible construction. The Company urges the EPA to provide sufficient time for utility companies to comply with the Clean Power Plan due to the 10-15 year planning cycles necessary in this industry.

Finally, the Company already has a standing committee of independent directors, the Safety, Environmental, Policy and Operations Committee (the "**Committee**"), that reviews the Environmental Report each year. The Committee's charter, available on the Company's investor relations website at www.alliantenergy.com/investors, charges the Committee with reviewing and monitoring our environmental policy and overseeing management initiatives to create and maintain a corporate culture of environmental stewardship, and with reviewing and monitoring risk exposure and mitigation strategies and issues with significant impact on energy resource adequacy, among other responsibilities.

The report requested by the Proposal would include much of the same information already contained in the Company's 2013 Form 10-K, Environmental Report and Comment Submission. In particular, the requested report on potential percentages and deadlines for implementation of GHG emission reductions other than the 30% reduction below 2005 levels by 2030 projected nationally for the EPA's Clean Power Plan would include much of the same information

discussed in the Comment Submission, including the challenges of accelerating implementation and balancing GHG emission reductions with providing affordable and dependable utility services. Furthermore, the outcomes of the Company's review of anticipated regulatory requirements and opportunities for GHG emission reductions have been incorporated into the Company's strategic plan and environmental compliance plans, which are described in the Company's 2013 Form 10-K.

The Company recognizes that there have been instances where the Staff has denied no-action relief to companies claiming that a proposal requesting a report had been substantially implemented. In those instances, however, the proposals requested specific information that the company had not provided. In *Dominion Resources, Inc.* (Jan. 26, 2012), the proposal requested a report assessing the economic and environmental benefits of the company developing electrical generation equivalent to 15% of its sales from wind and solar power facilities within the Commonwealth of Virginia and coastal waters by 2025. The public disclosures cited by the company in its no-action request addressed renewable energy generally, but did not specifically focus on energy generation from wind and solar sources. In *Spectra Energy Corp* (Feb. 21, 2013), the proposal requested a report on how the company is measuring, mitigating and disclosing methane emissions, including the methane leakage rate as a percentage of production and total assets measured. The public disclosures cited by the company in its no-action request did not include the company's methodology for measuring methane emissions or a published policy to reduce methane leakage or quantitative goals for reduction.

In contrast, the Proposal does not contain any requests for specific information that the Company has not addressed in its public disclosures. The supporting statement does request that the report include projections through 2050, but there is no credible information on technology, fuel pricing and other inputs available for a planning horizon out to 2050, so the Company would not be able to make projections for that time frame. The Company's public disclosures discussed above describe the actions the Company is taking to fulfill the expected requirements (if adopted as modified as proposed by the Company in the Comment Submission) of the Clean Power Plan's emission reduction goal for 2030 and otherwise prepare itself for expected future GHG emission regulations, and address the implications of its plans and actions for regulatory risk and operational costs. Moreover, the Company discusses its use of solar and wind power, and energy efficiency, as requested in the Proposal's supporting statement. Accordingly, the information that is provided by the Company in the 2013 Form 10-K, Environmental Report and Comment Submission substantially address the elements of the Proposal. The Proposal has therefore been substantially implemented and is excludable from the 2015 Proxy Materials pursuant to Rule 14a-8(i)(10).

II. The Company can exclude the Proposal under Rule 14a-8(i)(7) because it relates to the Company's ordinary business operations.

Rule 14a-8(i)(7) permits the exclusion of a proposal that deals with a matter relating to the company's ordinary business operations. As discussed in the 1998 Release, the ordinary business exclusion rests on two central considerations. The first is that "[c]ertain tasks are so fundamental to management's ability to run a company on a day-to day basis that they could not, as a practical matter, be subject to direct shareholder oversight." *1998 Release*. The second relates "to the degree to which the proposal seeks to 'micro-manage' the company by probing too deeply into matters of a complex nature upon which shareholders, as a group, would not be in a position to make an informed judgment." *Id.* The 1998 Release identified a proposal that "seeks to impose specific time-frames or methods for implementing complex policies" as an example of one that could be found to micro-manage the company. The Proposal relates to tasks that are fundamental to management's ability to run the Company's business and seeks to micromanage the Company by probing too deeply into the complex matter of the Company's choice of technology and resources used to generate energy.

The Staff has recognized that if a proposal otherwise relating to ordinary business matters focuses on "sufficiently significant social policy issues," the proposal is not considered excludable because it would "transcend the day-to-day business matters and raise policy issues so significant that it would be appropriate for a shareholder vote." *See id.*; *Staff Legal Bulletin No. 14E* (Oct. 27, 2009). Although the Proposal touches on an environmental issue, its main focus is on the costs and risks associated with the Company's choice of energy generating technologies.

The Proposal relates to the Company's choice of technologies and therefore seeks to micromanage the Company's business.

The Staff has concurred in the exclusion of proposals seeking reports relating to the development of products and product lines, including choices of processes and technologies used in the preparation of a company's products, as relating to a company's ordinary business operations. In *FirstEnergy Corp.* (Mar. 8, 2013), the Staff concurred that the request for a report regarding diversification of the company's energy resources to include increased energy efficiency and renewable energy resources could be excluded as it concerned the company's "choice of technologies for use in its operations." *See also Applied Digital Solutions, Inc.* (Apr. 25, 2006) (concurring in the exclusion of a proposal requesting a report on the harm the continued sale and use of radio frequency identification chips could have on the public's privacy, personal safety and financial security, because the proposal related to product development); and *WPS Resources Corp.* (Feb. 16, 2001) (concurring in the exclusion of a proposal requesting that the company consider identified alternatives to a planned electric transmission project, because the proposal related to choice of technologies).

The Proposal's request for a report on GHG emission reduction scenarios relates to the Company's choice between energy generation technologies for use in its electric generating units and for sourcing purchased electricity. These choices are part of the Company's ordinary

business operations of generating and distributing electricity to retail, wholesale and bulk power customers. Specifically, the Proposal calls for a comparison of the costs and benefits of a more aggressive deployment of additional specified zero-carbon energy generation strategies, notably solar, wind and energy efficiency, to achieve specified percentage emission reductions by specified dates. Similar to the situation in *FirstEnergy Corp.*, the Company has a large and varied portfolio of electric generating units, including those using coal, gas, wind, oil and hydro, and has choices in sourcing purchased electricity. By requesting a report on how the Company can fulfill GHG emission reduction scenarios by aggressively pursuing specified energy generation technologies, the Proposal relates specifically to the processes and technologies the Company chooses to use to generate electricity. Although the Proposal has been phrased as a report on how the Company can fulfill specified goals, rather than a report on diversifying the company's energy resources, as the proposal at issue in *FirstEnergy Corp.*, the content of the report requested by the Proposal would be very similar to the content of the report requested by the same Proponent in *FirstEnergy Corp.*

As the Proposal focuses on the Company's choice between energy generation technologies, it is precisely the type of micromanagement of a company's business that the 1998 Release indicated could be excluded because it probes too deeply into matters of a complex nature upon which shareowners, as a group, would not be in a position to make an informed judgment. The Proposal addresses day-to-day business operations of the Company that are extremely complex. As demonstrated by the Comment Submission discussed above and attached as **Exhibit C**, the Company's ability to balance its investments in cleaner and more efficient energy generation technologies while continuing to provide reliable and affordable power to customers is an extremely complicated matter. The Company's management of reducing GHG emissions while complying with regulatory requirements and factoring in additional matters including permitting, project development and construction is beyond the ability of shareowners, as a group, to make informed judgments.

The Proposal does not focus on a significant social policy issue.

The Commission has recognized that not all proposals relating to social policy issues are considered excludable. Specifically, only a proposal focusing on sufficiently significant social policy issues generally would not be considered to be excludable, because such a proposal would transcend the day-to-day business matters and raise policy issues so significant that the proposal would be appropriate for a shareholder vote. *1998 Release*.

The Staff has taken the position that proposals related to ordinary business activities are excludable if the overall focus of the proposal, considered along with the proponent's supporting statement, is not on a significant social policy issue or other matter outside of ordinary business. For example, in *FirstEnergy Corp.*, discussed above, the Staff concurred that the company could exclude a proposal requesting a report on actions the company could take to reduce risk throughout its energy portfolio by "diversifying the company's energy resources to include

increased energy efficiency and renewable energy resources” under Rule 14a-8(i)(7) although the proposal related to the significant social policy of climate change. *See also Dominion Resources, Inc.* (Feb. 3, 2011) (concurring that the company could exclude a proposal requesting that it initiate a program to provide financing to home and small business owners for installation of rooftop solar or wind power renewable generation although the proposal related to the social policy of environmental impacts of the company’s operations); and *ExxonMobil Corp.* (Mar. 6, 2012) (concurring that the company could exclude proposal requesting report on the “short and long term risks to the company’s finances and operations posed by the environmental, social and economic challenges associated with the oil sands” because the proposal focused on the economic challenges associated with oil sands and not a significant policy issue).

The Proposal does not focus on the significant social policy issue of climate change. Although the recitals preceding the resolution begin with a discussion of environmental matters, they shift to a focus on regulations that will or may constrain the Company’s operations in the future, the falling costs of certain renewable energy technologies, and expected global investments in renewable energy. In addition, the supporting statement accompanying the Proposal focuses on aggressive deployment of zero-carbon energy generation strategies. The Proposal, considered together with the recitals and supporting statement, focuses on the Company’s choice of technologies (including urging aggressive adoption of zero-carbon energy generation) and the regulatory risk and operational cost impacts of those choices.

The Company recognizes that there have been instances where the Staff has found that environmental proposals do transcend ordinary business operations. In those instances, however, the Staff found that the true focus of the proposals was on a significant social policy. *See Devon Energy Corp.* (Mar. 19, 2014) (request for company to prepare a report on the company’s goals and plans to address global concerns regarding the contribution of fossil fuel use to climate change not excludable because it focuses on the significant policy issue of climate change); *Spectra Energy Corp* (Feb. 21, 2013) (request for report on how the company is measuring, mitigating and disclosing methane emissions not excludable because it focuses primarily on the environmental impacts of the company’s operations); and *ExxonMobil Corp.* (Mar. 23, 2007) (“*ExxonMobil 2007*”) (request for company to adopt quantitative goals for reducing GHG emissions not excludable under Rule 14a-8(i)(7)). In contrast, the Proposal does not focus on the significant social policy of climate change, but focuses instead on the regulatory risks and operational costs and implications of the Company’s choice of technologies.

Devon Energy Corp. and *ExxonMobil 2007* are also distinguishable in that both focused on the impact of global climate change concerns on companies that are in the business of production of fossil fuels, which are products that create GHG emissions. In these examples, the focus of the proposals was climate change itself and the impact of climate change on the company’s prospects in a social and political climate in which demand for their products is greatly reduced. Similarly, in *Spectra Energy Corp* the focus of the proposal was the straightforward issue of the direct environmental impacts of methane leaks by a natural gas infrastructure company, and the

proposal suggested that methane leaks put the company's "social license to operate" at risk. In contrast, the Company operates utility businesses that own, operate and/or purchase electricity from electric generating units that rely on natural gas, coal, nuclear, wind, solar and hydro. Some, but not all, of these electric generating technologies produce GHG emissions, and those that produce such emissions may produce more or less depending on the technology utilized. As utilities, the Company's businesses have a public obligation to continue operations, including providing safe and reliable electricity to customers at reasonable prices. Unlike *Devon Energy Corp*, *Exxon Mobil 2007* and *Spectra Energy Corp*, the Proposal does not focus on the overall ability of the Company to continue to operate, but requests analysis of the choices the Company has and will continue to make in selecting among energy generation strategies and technologies and the implications of those choices on regulatory risks and operational costs.

Because the Proposal relates to the Company's choice of technologies, and does not focus on a significant policy issue, the Proposal is excludable under Rule 14a-8(i)(7).

Conclusion

Based on the foregoing, the Company respectfully requests that the Staff confirm that it will not recommend to the Commission that enforcement action be taken against the Company if the Company excludes the Proposal from its 2015 Proxy Materials.

If you have any questions concerning any aspect of this matter or require any additional information, please feel free to contact me at (608) 458-5562. Please email a response to this letter to JackBuri@alliantenergy.com.

Sincerely,



F. J. Buri

Corporate Secretary and Assistant General Counsel

Enclosures

cc: Patrick Doherty
Director of Corporate Governance
State of New York Office of the State Comptroller
59 Maiden Lane-30th Floor
New York, NY 10038
pdoherty@osc.state.ny.us

Exhibit A

Proposal and Related Correspondence

THOMAS P. DINAPOLI
STATE COMPTROLLER



STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

DIVISION OF CORPORATE GOVERNANCE
59 Maiden Lane-30th Floor
New York, NY 10038
Tel: (212) 383-1428
Fax: (212) 383-1331

December 1, 2014

F. J. Buri
Corporate Secretary
and Assistant General Counsel
Alliant Energy Corporation
4902 North Biltmore Lane
Madison, Wisconsin 53718

Dear Mr. Buri:

The Comptroller of the State of New York, Thomas P. DiNapoli, is the trustee of the New York State Common Retirement Fund (the "Fund") and the administrative head of the New York State and Local Retirement System. The Comptroller has authorized me to inform of his intention to offer the enclosed shareholder proposal for consideration of stockholders at the next annual meeting.

I submit the enclosed proposal to you in accordance with rule 14a-8 of the Securities Exchange Act of 1934 and ask that it be included in your proxy statement.

A letter from J.P. Morgan Chase, the Fund's custodial bank verifying the Fund's ownership of Alliant Energy Corporation shares, continually for over one year, is enclosed. The Fund intends to continue to hold at least \$2,000 worth of these securities through the date of the annual meeting.

We would be happy to discuss this initiative with you. Should the Alliant Energy Corporation board decide to endorse its provisions as company policy, the Comptroller will ask that the proposal be withdrawn from consideration at the annual meeting. Please feel free to contact me at (212) 383-1428 and or email at pdoherty@osc.state.ny.us should you have any further questions on this matter.

Very truly yours,

Patrick Doherty
Director of Corporate Governance

Enclosures

Climate Change and Greenhouse Gas Reduction

WHEREAS:

The United States and 114 other nations have signed the Copenhagen Accord on climate change, which recognizes that "the increase in global temperature should be [kept] below two degrees Celsius," to avoid potentially devastating societal harm, and "deep cuts in global emissions are required" in order to do so.

The International Energy Agency (IEA) states, "No more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 °C goal..." and, "Almost two-thirds of these carbon reserves are related to coal..." IEA, 2012 Annual Energy Outlook.

In May 2011, the National Academy of Sciences warned that risk of dangerous climate change impacts grows with every ton of greenhouse gases (GHGs) emitted. The report also emphasized that, "the sooner that serious efforts to reduce [GHG] emissions proceed, the lower the risks posed by climate change, and the less pressure there will be to make larger, more rapid, and potentially more expensive reductions later."

In June 2014, the U.S. EPA released its proposed Clean Power Plan that would require states to achieve GHG reductions of 30% below 2005 levels by 2030 on average nationwide with varying state-specific emission rate goals. The Obama Administration has also articulated a long-term GHG goal of an 80 percent reduction by 2050, and in November 2014 announced an agreement with China, committing the U.S to GHG reduction of 24-26% below 2005 levels by 2025.

A 2012 report by Ceres emphasized risk and cost reduction benefits of aggressive deployment of energy efficiency and renewable energy, especially compared with large-scale fossil fuel projects. Prices for wind and solar continue to decline dramatically. Lazard indicated in September 2014 that the levelized cost of energy of solar PV technologies had fallen by nearly 20 percent in the past year, and nearly 80 percent over five years.

A 2013 report by Citi estimates that of \$9.7 trillion anticipated investment in power generation globally by 2035, 71% will be invested in renewables or clean technologies.

RESOLVED:

Shareholders request that the Company prepare and publish a report, reviewed by a board committee of independent directors, describing how it can fulfill medium and long-term greenhouse gas emission reduction scenarios consistent with national and international GHG goals, and the implications of those scenarios for regulatory risk and operational costs. The report should be published by September 1, 2015 at reasonable cost and omitting proprietary information.

Supporting Statement:

At minimum, the report should describe potential commitments above and beyond compliance, through which the company could reduce its emissions below 2005 levels by 40% by 2030 and 80% by 2050, and should compare costs and benefits of more aggressive deployment of additional zero-carbon energy generation strategies compared with current commitments and plans. "Zero-carbon" strategies would not generate significant GHGs in the course of meeting energy demands, e.g., solar or wind power, or energy efficiency.

J.P.Morgan

Richard J. Costantino

Vice President
CIB Client Service Americas

December 1, 2014

Mr. F. J. Buri
Corporate Secretary and Assistant General Counsel
Alliant Energy Corporation
4902 North Biltmore Lane
Madison, WI 53718

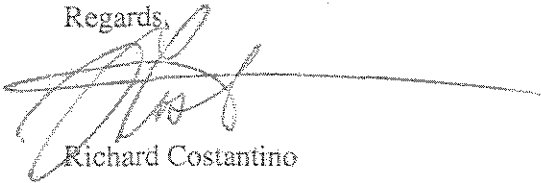
Dear Mr. Buri:

This letter is in response to a request by The Honorable Thomas P. DiNapoli, New York State Comptroller, regarding confirmation from JP Morgan Chase that the New York State Common Retirement Fund has been a beneficial owner of Alliant Energy Corporation continuously for at least one year as of and including December 1, 2014.

Please note that J.P. Morgan Chase, as custodian for the New York State Common Retirement Fund, held a total of 284,964 shares of common stock as of December 1, 2014 and continues to hold shares in the company. The value of the ownership stake continuously held by the New York State Common Retirement Fund had a market value of at least \$2,000.00 for at least twelve months prior to, and including, said date.

If there are any questions, please contact me or Miriam Awad at (212) 623-8481.

Regards,



Richard Costantino

cc: Patrick Doherty-- NSYCRF
Eric Shostal - NYSCRF

Exhibit B

Alliant Energy Environmental Report

Alliant Energy

Environmental Report

NOVEMBER 2014

We're on for you.™



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Oversight

Alliant Energy's Board of Directors has assigned oversight of environmental policy and planning issues to the Safety, Environmental, Policy and Operations (SEPO) Committee. This committee also reviews and monitors regulatory matters, public policy and issues of strategic significance relating to the operations of Alliant Energy. The SEPO Committee is comprised solely of independent directors and reports on its reviews and, as appropriate, makes recommendations to Alliant Energy's Board of Directors. The SEPO Committee approved this report for publication.

Forward looking statement

This report includes forward-looking statements. These forward-looking statements can be identified as such because the statements include words such as "plans," "expects," "estimated," "objective," "proposed," "approximately," "potentially," or other words of similar import. Similarly, statements that describe future plans or strategies, emissions reductions, compliance with current and future regulations and future generation plans are also forward-looking statements. Further, current designs for future projects are forward-looking statements. Such statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those currently anticipated. Actual results could be affected by such factors as: state or federal regulatory actions or local government actions, including inability to obtain all necessary approvals and permits; issues associated with environmental remediation efforts and with environmental compliance generally, including changing environmental laws and regulations; changes in the application or interpretation of existing laws and regulations; the ability to successfully defend against environmental claims brought by state and federal agencies or third parties, such as the Sierra Club; advances in technology and Alliant Energy's access to technological developments; failure of equipment and technology to perform as expected; plan design changes; unanticipated construction issues, delays or expenditures, including increased costs or labor, materials and equipment; current or future litigation, regulatory investigations, proceedings or inquiries that could impede the implementation of Alliant Energy's plans; changes in tax and other laws to which Alliant Energy is subject; Alliant Energy's continued access to capital markets; political conditions in Alliant Energy's service territories; economic conditions in Alliant Energy's service territory.

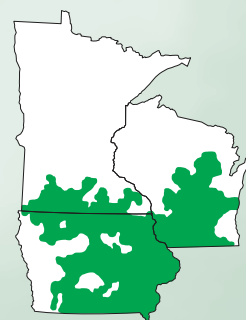
These factors should be considered when evaluating the forward-looking statements and undue reliance should not be placed on such statements. The forward-looking statements included herein are made as of the date hereof and Alliant Energy undertakes no obligation to update publicly such statements to reflect subsequent events or circumstances.

About us

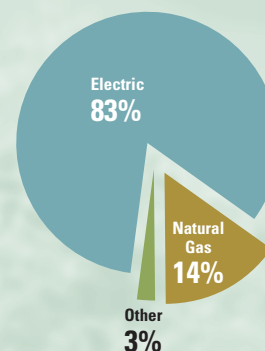
Welcome to Alliant Energy's Environmental Report! Alliant Energy is an electric and gas utility company that serves nearly one million electric customers and 415,000 natural gas customers in over 1,300 communities across Iowa, Wisconsin and Minnesota.

As a utility company, we realize that our decisions have an impact on the world around us and that we have a responsibility to take care of the environment. Alliant Energy and its nearly 4,000 employees understand that we all live, work and play in the same places, and that we have a shared interest in a clean, healthy and safe existence. Our belief is that both energy and the environment are invaluable to our quality of life.

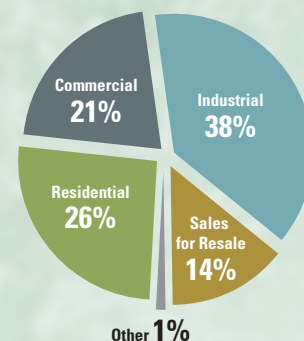
Want to know more about us? We invite you to visit alliantenergy.com.



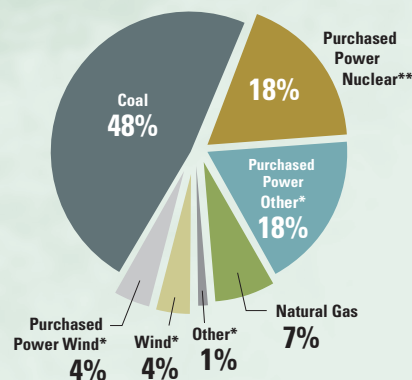
2013 Utility operating revenues



2013 Electric sales mix



2013 Electric power sources



*All or some of the renewable energy attributes associated with generation from these sources may be: (a) used in future years to comply with renewable energy standards or other regulatory requirements or (b) sold to third parties in the form of renewable energy credits or other environmental commodities.

**Nuclear includes replacement energy provided under the Kewaunee Nuclear Power Plant purchased power agreement after Kewaunee was shut down in May 2013.

We're energized

for the
future

We are energized

by environmental opportunities for Alliant Energy in the coming years. We have a simple premise: Our company and our employee family believes that a clean, safe and healthy environment is something that we all deserve to have and is something we must preserve for future generations.

Our company considers environmental impacts of all our activities. Still, we know our customers and stakeholders expect us to do more.

To meet our high standards and those of our customers, we are continuing to take steps to be both innovative and responsible with our resources. One example is our approach to climate change. We believe it is in the best interests of Alliant Energy, as well as its employees, customers and communities, to take steps toward reducing greenhouse gas emissions.

We've been working for several years to improve the environmental footprint of our largest coal-fired power plants. This includes investing \$1.4 billion in state-of-the-art air quality improvement systems. Our company recognizes customers want us to be leaders in energy efficiency and renewable resources.

We are looking beyond traditional, reactionary problem-solving to anticipating future trends and challenges. We are seeking opportunities for environmental stewardship. In this report, we highlight our unique approach – part of our character and culture – which ranges from protecting the federally endangered Karner Blue butterfly to supporting alternative energy sources like biogas from our local farms.



From left to right: Scott Blankman, Pat Kampling and Doug Kopp

As we look to the future, it's crucial that we continue to hear our customers and gain a deep understanding of their needs and interests. We already see that our customers' desires are leading us to work in different ways, such as providing more options like *Second Nature*™ or supporting customer-owned wind or solar; conducting research with others and sharing best practices in sustainability; and working with our customers on the shared responsibility we have for the environment.

We thank you for taking the time to learn more about our environmental story.

Patricia L. Kampling

Patricia Leonard Kampling
Chairman, President & CEO

D. R. Kopp

Douglas R. Kopp
Senior Vice President – Operations Support

Scott A. Blankman

Scott Blankman
Director – Energy Markets & Environmental Services

Putting action into our

Environmental values

Empowering our customers

The warmth of the sun on our skin during the summer can lift our mood and bring a smile to our face. The sun brings us energy in so many ways, and while solar energy is not new, it is becoming increasingly popular. Solar power is a growing part of Alliant Energy's diverse energy resource mix, and one that is supplied to us directly from our customers through their owned generation.

This customer-owned, renewable energy source has clearly been embraced by many individuals, businesses and communities across our service territory. As of July 2014, almost 900 Alliant Energy customers have installed solar panels on their homes and business.



Kirkwood Court and Campus View Apartments going big on solar

In September 2014, the Kirkwood Court and Campus View Apartments hosted a ribbon-cutting ceremony to celebrate the completion of a solar installation on their complex. The solar project is the largest non-utility solar project in Iowa and the largest multi-tenant solar power installation ever built in the Midwest. Haverkamp Properties, All Energy Solar and Alliant Energy all contributed to the project.

An apartment complex offers a great opportunity to bring solar power to multiple people, so that many different individuals can benefit from it. The Kirkwood Court and Campus View Apartments, near the Kirkwood Community College campus in Cedar Rapids, Iowa, grabbed that opportunity by bringing 2,000 solar panels onto the property. The solar installation provides electricity to 26 buildings, 400 units and over 800 students.

The ownership group invested \$1.8 million in the solar project. On sunny days, the complex produces more power than its student tenants need to power their computers, microwaves, refrigerators and other appliances. Annually, the system is expected to generate about 75% of all the complex's power needs.

The solar panels should pay for themselves with energy savings in roughly eight years. The group is also planning to have an educational kiosk at the entrance of the management offices. The kiosk will display how much money the apartments are saving and the efficiency of their energy usage.

Kirkwood Court and Campus View Apartments



Customers can quickly switch to renewable energy

One of the largest obstacles for people wanting to use more renewable energy is the upfront cost of purchasing their own generation equipment. Alliant Energy's voluntary *Second Nature* program removes that barrier. It allows Alliant Energy residential and business electric customers to support electricity generated from renewable resources through additional payments in their monthly bills. There is no special equipment to buy and no lifestyle changes needed. Currently, nearly 15,000 residential and business customers contribute to the purchase of renewable energy.



Second Nature offers residential electric customers three participation levels: 25%, 50% or 100% of their monthly electric usage. Based on the average customer's use of 1,021 kilowatt-hours of electricity per month, participation at the 25% level costs just 17 cents per day, or about \$5.10 per month. Not a bad deal to support more renewable energy.

Farm, small business or commercial/ industrial electric customers of Alliant Energy who join *Second Nature* pay a monthly contribution, which covers the added expense of harvesting the wind, solar and biomass energy used in the program.

A solar energy supplier boosts our renewable energy program

Lijun Chadima installed solar panels at her business in Cedar Rapids, Iowa, several years ago. That power is one of many sources of renewable energy for our *Second Nature* program. The panels generate about 11,000 kilowatt-hours of energy

each year for Alliant Energy's *Second Nature* customers. One of Chadima's goals when she had the panels installed was to show that generating solar power isn't just for homeowners. The solar panels produce electricity without compromising natural resources, which is the kind of sustainability Chadima wants to see in all cities.



Former alpaca farm repurposes land to produce solar energy

About a mile east of Mayville, Wis., Roger and Susan Wilson have installed solar panels on their Whispering Hills Alpaca Farm. While the name of the property remains, the alpacas have been sold and no longer roam the fields. Instead, you'll see panels from a 40 kilowatt solar system covering their backyard. Alliant Energy began purchasing solar energy from the facility in August 2014. Roger and Susan embrace all types of renewable energy. They previously added a geothermal system to the location to lower their heating bills. Now, the solar power means even lower electric bills for their farm and home.



Expanding renewable energy

Quenching your thirst with an ice cold drink of water is one of life's simple pleasures. Water was also likely the first form of renewable energy that we tapped on this earth. During the late 1800s and early 1900s, there was a significant expansion in generating electricity from water. In fact, Alliant Energy has been bringing hydroelectric power to customers for over a century. As we look back, renewable energy has been a consistent component of our power generation.

As we look to the future, there are other forms of renewable energy that are growing such as solar energy. This expansion is being driven by our customers. One growing source of alternative energy comes directly from our farm communities. The amount of "cow power" (biogas) is expanding, and with the number of cows in the Midwest, it could continue to do so for many years.



Iowa cows doing their part to generate electricity for customers

The more than 2,400 head of cattle at Sievers Family Farms near Stockton, Iowa, are among the latest in the state to start generating renewable energy. A digester at the farm uses the gas from the cattle manure as a fuel to power an electric generator. The unit provides up to one megawatt of power to the farm and our company's electric grid. The "cow power" is then sold to Alliant Energy to supply our customers with alternative energy. When the generator is able to run, it can create enough energy to power about 1,000 homes.

Wisconsin's largest dairy farm part of innovative collaboration

A partnership between a dairy farm, a public university and a lot of cows is bringing power – and some future learning opportunities – to Alliant Energy customers and others across the country. The Rosendale Dairy Biogas System uses manure from Wisconsin's largest dairy, home to 8,500 cows, to generate renewable biogas.



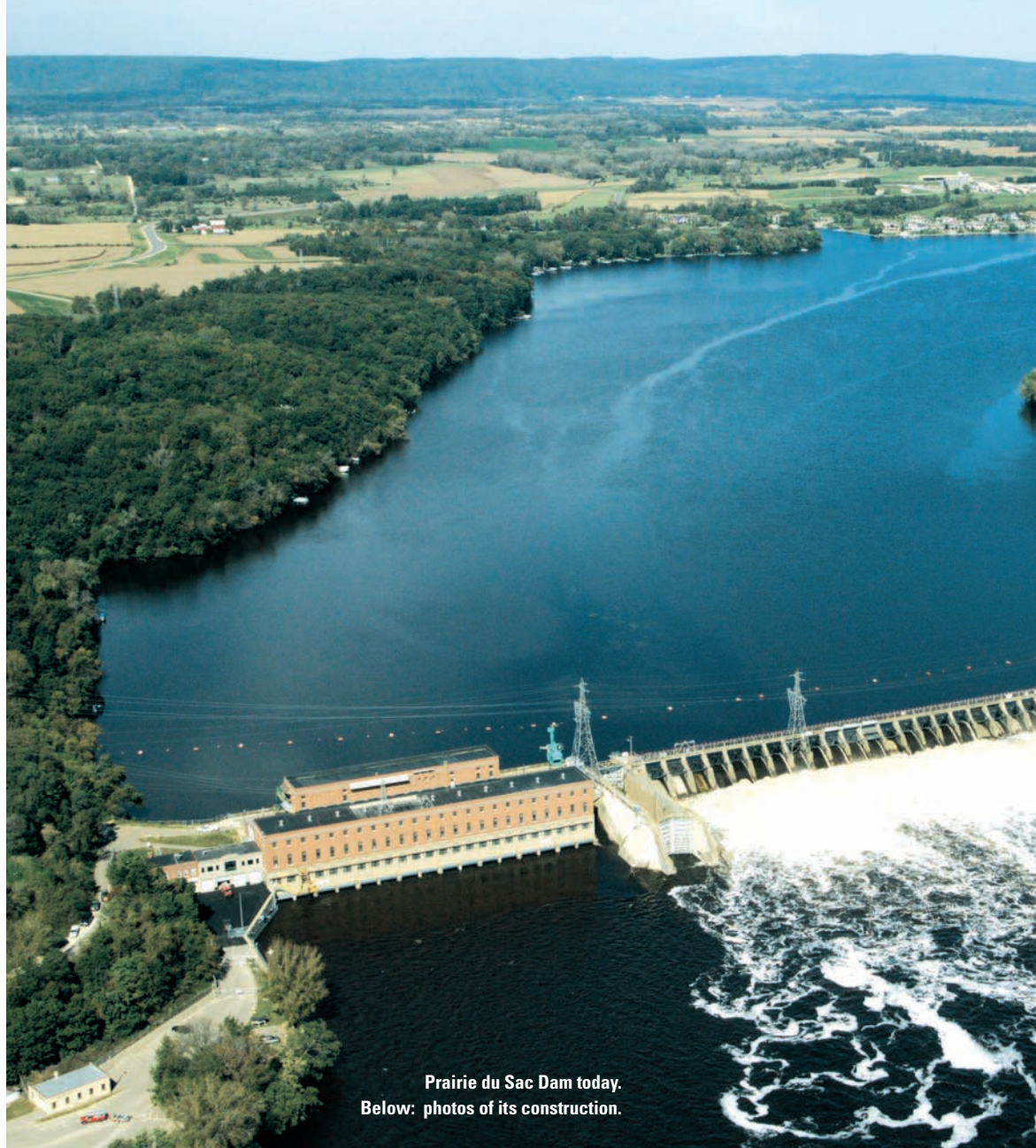
Rosendale Dairy biogas system

Future plans for the site include the establishment of a student/faculty operated public education center, as well as a learning laboratory for University

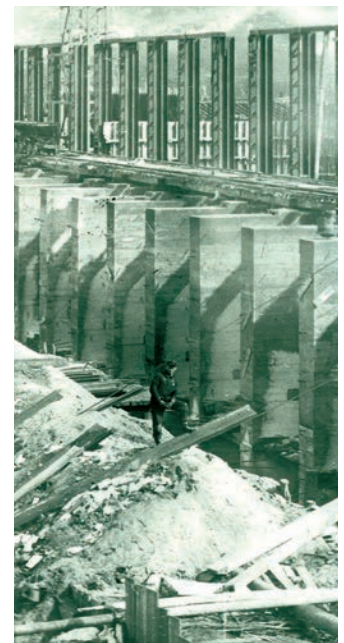
of Wisconsin Oshkosh students. Environmental science, engineering and dairy management organizations will also have access to the public center.

**Hydropower facility
celebrates 100 years
of operation**

It was 1914. World War I was just beginning and dominated the world headlines. Baseball legend Babe Ruth made his major league debut as a pitcher with the Boston Red Sox. The Panama Canal officially opened. Around here, construction of the Prairie du Sac Dam on the Wisconsin River was completed. When the dam began generating electricity in September 1914, it was the largest hydroelectric power plant west of Niagara Falls. Alliant Energy is proud to mark the 100th anniversary of the Prairie du Sac Dam near Prairie du Sac, Wis., one of the original renewable energy power plants in the nation.



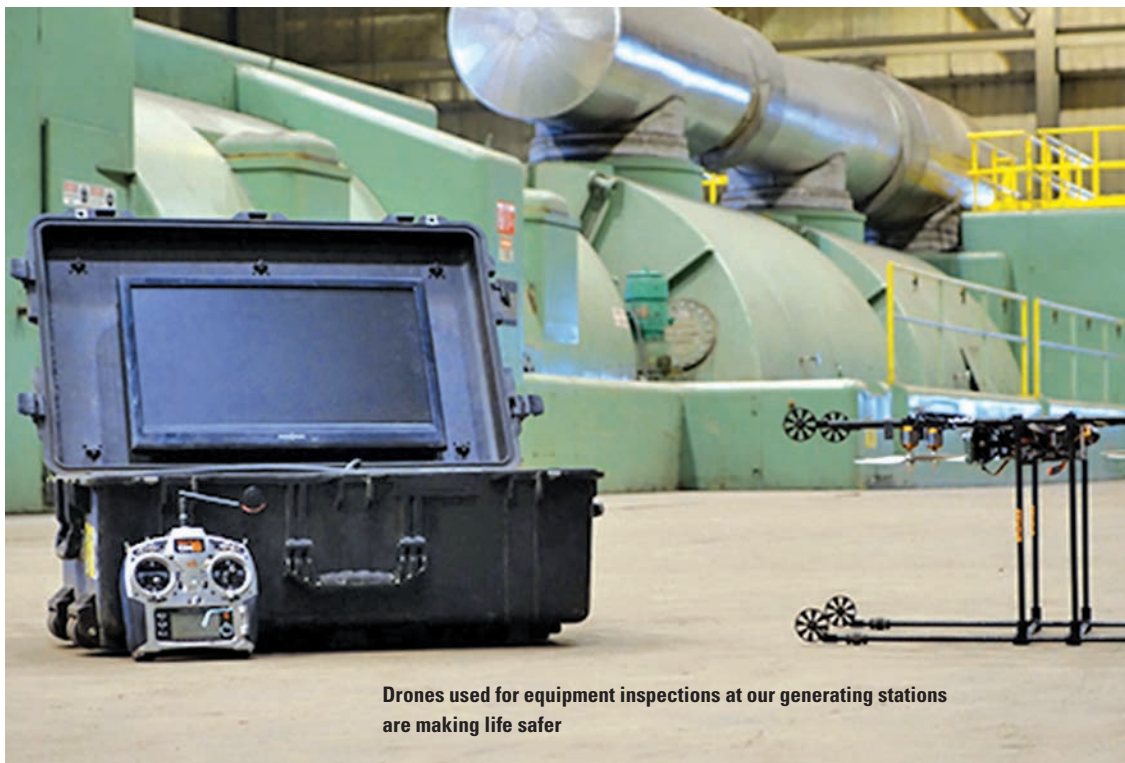
Prairie du Sac Dam today.
Below: photos of its construction.



Implementing new technologies

Alliant Energy is part of an energy industry that is changing fast. To keep up, we work with customers and use technology from today, and imagine new energy technologies, to create solutions.

Applying best practices from other industries and our own, help us to innovate for our customers. For example, we just started using drones to inspect boiler burners. We are expanding use of compressed natural gas (CNG) across our service territory. Taking advantage of these technologies creates ways to provide cost-effective approaches to environmental stewardship, reliable service and a diverse energy portfolio.



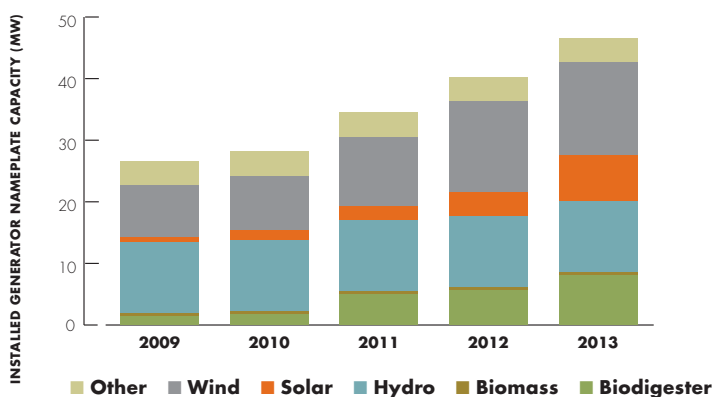
Drones used for equipment inspections at our generating stations are making life safer

Drone technology put to use at Ottumwa Generating Station

When you say the word “drone,” most people think about the military. However, remotely piloted aircraft (RPA) technology has applications for the inspection of power plants as well. At the Ottumwa Generating Station near Ottumwa, Iowa, a four-propeller drone with a high definition camera was recently used during a scheduled outage to help determine what repairs were most needed for a future boiler tuneup.

One technician flew the RPA while another technician gave direction and made sure the device was capturing clear images. The camera took video at a high frame rate so that still photos could also be extracted from the footage. Inspecting boilers can be a tedious, challenging and tricky task. There are also safety risks. Tapping RPA technology is a creative approach to a previously manual and labor-intensive process.

Customer-owned renewable generation



Source: Alliant Energy records. Note that the above chart is based on known customer-owned renewable generation installations up until the time of publication of this report.

Alliant Energy continues to see growth in small-scale customer-owned renewable generation. Our company supports these installations as an important means to further renewable energy resources in our service territory.

Expanding compressed natural gas technology means cleaner air

Natural gas is one of the most widely used forms of energy in our country; compressed natural gas (CNG) as a vehicle fuel dates back to World War II. Natural gas vehicles (NGVs) are a proven technology that have been enhanced and refined over the years into a convenient and extremely safe method of transportation.

Last fall, Alliant Energy representatives attended a ribbon-cutting ceremony in Janesville, Wis. at Kwik Trip's newest CNG station. While this is Kwik Trip's third CNG station in our company's service territory, it is the first station located in a community where Alliant Energy is both the electric and gas supplier.

Our company has been working closely with Kwik Trip to develop additional CNG stations across our service territory so all of our customers can benefit from this resource. Kwik Trip fuels all of its trucks with CNG; it is the company's goal to string together a network of CNG stations along the major highways and interstates in Wisconsin before expanding into Minnesota and Iowa.



New ideas for environmental solutions

Alliant Energy views sustainability as an everyday way of doing business. We also encourage suppliers, customers and other energy businesses to partner with us to explore new solutions to environmental challenges.

Using research and technology to reduce wind farm impacts to bat populations

Alliant Energy operates its wind farms in an environmentally sustainable manner. Our objective is to minimize potential impacts to birds, bats and other wildlife and their habitats.

We are working with the Electric Power Research Institute (EPRI), along with four other sponsors, to create a tool aimed at reducing bat mortality caused by wind turbines. EPRI's "Bat



Detection and Shutdown System for Utility-Scale Wind Turbines" involves an acoustic-based integrated turbine management system that is

expected to effectively reduce bat mortality at wind farms.

By participating in this EPRI study, which will be tested and concluded in 2015, Alliant Energy will gain information on how this technology can be implemented at all of our wind farms. Another sponsor of the study will be conducting a bat mortality analysis as the technology rolls out at their wind farm, and we'll be able to find out how well this new technology works in the field.



Putting action into our

Environmental values

Using recycled byproducts to create more durable roads and benefit the environment

Alliant Energy is reusing and recycling about 75% of the coal ash from its power plants to help create greener roadways and buildings. While our company continues to develop renewable energy resources, we are using innovative practices to ensure that our traditional generation resources have a reduced impact on the environment as well as making state highways and structures even more durable.

For each ton of coal Alliant Energy power plants burn to produce electricity, about 100 pounds becomes coal ash. There are two different types of ash byproduct. Bottom ash is a coarse granular material collected at the bottom of our boilers. Fly ash is a light powdery substance captured in the air quality improvement systems at our power plants. Both bottom and fly ash consist of chemical compounds that are commonly found in natural materials.

Fly ash is used extensively in concrete, from lightweight applications to ultra-strong, load-bearing columns in high-rise buildings. It makes the concrete stronger and less permeable. Some of the most well-known buildings in the country have used concrete containing fly ash in their construction.



Fly ash being recycled as roadbed fill



Alliant Energy's ash recycling program reduces the need to dispose of the byproduct in a landfill as waste material. In addition, when fly ash is used in concrete as a raw material replacement, there are environmental benefits from avoiding cement production. This includes reduced water use and greenhouse gas

emissions. In 2013, Alliant Energy fly ash use for concrete was 356,600 tons. That represents an equivalent of approximately 32 million gallons of water savings and reduced greenhouse gas emissions of 250,000 tons of carbon dioxide.

Enhancing our communities

Our company has always believed that supporting energy efficiency and environmental stewardship is part of being a responsible business. Investing in energy-saving initiatives and supporting greener communities benefits everyone in the long run. Here are some examples of those efforts.

LED streetlights save energy and money across our service territory

Iowa and Wisconsin streetlights are becoming more energy efficient and cost-effective. Following the success of a pilot project in Cedar Rapids, Iowa, Alliant Energy extended a light-emitting diode (LED) streetlight replacement program statewide and also initiated a pilot program in Wisconsin.

Streetlights across Iowa and Wisconsin have traditionally been high-pressure sodium (HPS) lights that typically feature a 100-watt bulb. The 80-watt LED streetlights being installed are more energy-efficient than the existing HPS lights. They also produce a whiter, more defined and sharper light that allows the human eye to see details and colors better than HPS lights, which tend to give off a yellowish light over a less-defined area.

In addition, LED streetlights are designed to have a much longer useful life than HPS streetlights, which reduces the ongoing maintenance cost. Finally, LEDs perform well in cold temperatures, tend to be breakage and vibration resistant, and don't need to warm up.

Alliant Energy plans to change out all of our 53,000 streetlights across Iowa as the HPS streetlights burn out or stop working, which we estimate will be within seven years. So far, we've completed the replacement of about 15,000 streetlights. In Wisconsin, our company is close to completing its second year of a LED streetlight pilot project. As part of the pilot project, Alliant Energy's Wisconsin utility has regulatory approval to replace up to 4,000 HPS streetlights with LEDs by the end of 2017. Over 1,000 have been replaced so far in over two dozen communities.



LED streetlight



Cedar Rapids saving with LEDs

Alliant Energy is making great progress in replacing the 9,600 HPS streetlights in Cedar Rapids, Iowa. As of August 2014, more than 2,000 LED streetlights have been installed and are saving the city about \$2,000 a month. Feedback from residents continues to be positive.

Putting action into our

Environmental values



Alliant Energy / Trees Forever partnership makes Iowa communities greener

Branching Out is a nationally recognized and award-winning tree-planting program through which Alliant Energy, Trees Forever and Iowa communities work together to plan, fund and implement community tree-planting projects. The program is designed to encourage energy efficiency, environmental awareness and community stewardship.

Alliant Energy provides grants of \$1,000 to \$10,000 for community-based tree-planting projects, including streetscapes, schools, public buildings, trails, parks, entranceways, cemeteries and more. Trees Forever administers and facilitates the program, providing organizational, educational, planning and planting support through a network of experienced field staff. Grants are awarded two times per year, to coincide with the spring and fall planting seasons.

In the spring of 2014, *Branching Out* grants totaling \$109,000 funded 32 tree-planting projects in Iowa communities. In addition to adding beauty, trees are a natural source of energy efficiency. They provide shade on hot days and offer a windbreak on cold days. To date, over a million trees have been planted.



Emerald Ash Borer

Tree diseases make species diversity and tree handling important

Trees take many years to reach full maturity. That's why it's important to make sure trees planted today will last a long time. With the threat of Emerald Ash Borer (EAB), Dutch Elm Disease, Burr Oak Blight and others, the need for a diverse population of trees is important.

By increasing the diversity of the tree populations, we're helping to ensure the investment in these natural energy-efficiency tools lasts a long time. With the recent prominent threat of the EAB, Alliant Energy takes special precautions to limit the transportation of these trees, following the guidelines that prohibit moving trees out of a quarantined county.



Advancing energy savings

Alliant Energy helps customers save energy and money through support of energy-efficiency programs like home energy audits and insulation rebates, heating and cooling program offerings, new construction programs, and commercial and industrial custom rebates.

Saving energy is a natural part of who we are and what we do. It's a responsibility we share with our customers, and it has a direct and positive impact on the environment.



Dubuque Water and Resource Recovery Center

New City of Dubuque wastewater treatment facility cuts energy use

In late 2013, the City of Dubuque replaced a 40-year-old wastewater treatment facility with a new \$70 million Water and Resource Recovery Center. The project, which was the largest capital improvement project in the city's history, involved four major components:

- Construction of four new anaerobic digesters and a solids processing building.
- Conversion from chlorine gas use to ultraviolet light technology for disinfection.
- Implementation of ENERGY STAR® design guidelines for the numerous buildings on site to reduce lighting and HVAC energy requirements.
- Improved efficiency in the aeration system to reduce electrical energy use.

Innovative techniques in the design, construction and management of this facility are expected to cut heating and cooling usage by 25% to 30%. With all of these efficiencies built into the new treatment facility, the City saves almost two million kilowatt-hours annually. Alliant Energy partnered with the city in providing custom and prescriptive rebates for the project.

Hometown Rewards Program boosting Iowa community's energy efficiency

The citizens of Oelwein, Iowa are saving energy at home and at work through Alliant Energy's *Hometown Rewards* program. Hometown Rewards is a two-year program that will help the residents of Oelwein focus on energy efficiency and conservation. If they meet their communitywide energy-saving goal, our company will reward the city with money to assist with an energy-efficiency project that will benefit the entire community.

The program kicked off in May 2014 with a public event in the Oelwein Community Plaza. The gathering was both fun and educational, with information on hand to help community members start energy-saving practices to help Oelwein meet its *Hometown Rewards* goals. One of the city's goals is to save more than 4.1 million kilowatt-hours (kWh) in electricity and natural gas equivalent. That is equal to lowering annual electric bills for a typical family of four in Oelwein by \$220. Another goal includes having 125 Oelwein households complete a Home Energy Audit through Alliant Energy.



Mercury Marine a leader in energy management and efficiency

Mercury Marine in Fond du Lac, Wis. has been recognized as a leader in the marine propulsion industry and in energy efficiency for several decades. One example is the aggressive sustainability plan the company launched in 2010 that included an energy conservation goal of reducing their energy consumption 30% by 2015. They reached their goal in early 2014 and have already replaced it with a new goal to save 45% by 2017.

Mercury Marine's sustainability efforts have been praised in the state of Wisconsin. The company has been awarded the "Green Master" designation from the Wisconsin Sustainable Business Council for three consecutive years and won the 2014 Wisconsin Business Friend of the Environment Award for its role in pollution prevention, innovative technology and environmental stewardship.

Another example is the multiple energy conservation projects Mercury Marine completed at their new state-of-the-art Product Development and Engineering Testing facility.

These projects resulted in both electric and natural gas savings, making a positive impact on the environment. The projects' environmental benefit is equal to removing the carbon dioxide from 4.7 million automobile miles driven annually.

Alliant Energy works hand in hand with and helps fund Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, to assist homes and businesses. Focus on Energy programs help our customers manage their energy usage and costs. As a result of the projects completed at their testing facility and the incentives offered through Focus on Energy, Mercury Marine has identified, designed and implemented clean energy and technological solutions, delivering important environmental and economic benefits.



Columbia Energy Center

Transforming our fleet

Alliant Energy is well on its way to transforming our generating fleet to one that has fewer, cleaner and more efficient units. Our power plants are becoming more flexible, with a mix of fuel sources that reduces dependency on one fuel choice and enables us to better respond to new technologies and environmental rules.

We continue to improve the air quality around our largest and most efficient coal-fired power plants. We have three major projects underway and a fourth that is pending regulatory approval. We are planning to invest more than \$1.4 billion in environmental improvement projects from 2008 through 2017.

Columbia Energy Center air quality improvement project a success

Wisconsin communities are benefiting from cleaner energy with the spring 2014 completion of an environmental improvement project at the Columbia Energy Center near Portage, Wis. Alliant Energy and its co-owner partners, Madison Gas & Electric Co. and Wisconsin Public Service Corp., installed air quality improvement technology at the power plant that is reducing sulfur dioxide (SO₂) and mercury emissions by approximately 90%.



Columbia scrubber system

This environmental improvement project included the addition of baghouse and scrubber systems to both Columbia Units 1 and 2. The environmental improvement project is one of the largest ever built at a Wisconsin power plant. In addition, it came in on schedule and under budget by approximately \$30 million.

In January 2014, final regulatory approval was received to upgrade coal pulverizers and steam turbines at Columbia. The project will improve efficiency and reliability, with construction expected to begin in 2015 and completion scheduled for 2017.

In July 2014, Alliant Energy and its Columbia Energy Center co-owner utility partners made a request to the Public Service Commission of Wisconsin to move forward with another environmental improvement project. The plan is to install a selective catalytic reduction system (SCR) on Columbia Unit 2. This additional air quality improvement technology would reduce nitrogen oxide (NOx) by approximately 50%. The project is expected to begin construction in 2016 and be completed in 2018.

Study underway regarding responsible reuse of byproducts from air quality improvement project

Alliant Energy is currently completing two studies to investigate whether the byproducts from the Columbia Energy Center scrubber systems are suitable for farmers to beneficially reuse. The first study is evaluating the effects and application of the byproducts on native Wisconsin soils. It will provide information for a permit application to use the byproduct as a soil amendment.



Scrubber byproduct

A second study will determine whether there is a market for the byproduct in the agricultural industry. This study will take place at the University of Wisconsin Soils Research Station, located near the Columbia Energy Center in Arlington, Wis. The study will rotate field crops native to Wisconsin to evaluate at a variety of byproduct application rates.

Edgewater Generating Station begins second major air quality improvement project

In May 2014, a groundbreaking event was held at the Edgewater Generating Station in Sheboygan, Wis. to mark the official start of construction for an environmental improvement project at the plant's Unit 5. Our company is installing a baghouse and scrubber system that will reduce SO₂ and mercury emissions at Unit 5 by approximately 90%. The air quality improvement technology is expected to be placed into service in 2016.

This project comes on the heels of a successful SCR system installation on Edgewater Unit 5 that was completed at the end of 2012. This air quality improvement technology is reducing the plant's NOx emissions.



Ottumwa Generating Station air quality improvement project nearly complete

The environmental improvement project at the Ottumwa Generating Station, located outside of Ottumwa, Iowa, near Chillicothe, is nearly complete. The installation of a baghouse and scrubber system started in 2012 and is expected to be completed by the end of 2014. The project goal is to reduce SO₂ and mercury emissions from the power plant by 90%.

Putting action into our

Environmental values

Environmental control construction recycling efforts

Beyond decreasing emissions, we are also able to reduce the environmental impact of these projects through our recycling efforts. Alliant Energy and its construction partners have agreed to recycle construction debris from these projects, keeping it out of landfills, which saves natural resources and money.

Concrete, metals, cardboard, wood and other types of consumables that are either demolished during construction or used for delivery of materials are recycled on all of these emission control projects. Through mid-2014, we have recycled over 5,000 tons of materials that would have otherwise ended up in landfills. Putting this into perspective, this weight is roughly the equivalent of 2,500 cars.



Natural gas power plant construction begins

In July 2014, Alliant Energy broke ground on the Marshalltown Generating Station (MGS) in Marshalltown, Iowa. MGS is an approximately 650 megawatt, combined-cycle, natural gas-fueled facility that is expected to power more than 500,000 homes. The MGS is expected to begin operations in the second quarter of 2017.

The new power plant will provide cleaner, reliable and cost-competitive energy to current and future generations of Iowans. It is a key component of our company's move toward a greener fuel mix with reduced emissions.



MGS rendering

Riding the wind to benefit the environment and customers

A commercial wind turbine powers about 250 homes. Alliant Energy owns and operates 344 wind turbines across three states. That's enough to power about 96,000 homes. But that's just the start. Our company purchases even more wind power than we generate ourselves, and we've been doing it since the early 1990s.

All told, the combined owned wind and purchased wind generation could power over 300,000 homes with an energy source that produces no carbon dioxide or air pollutant emissions. It requires no water, mining, drilling or transportation of fuel, and generates no waste. Our company has been riding the wind for decades to the benefit of the environment and customers.

Sustaining natural resources

The electric and natural gas distribution business by its very nature requires a substantial amount of land. In addition, to effectively operate our vast distribution and generation systems, Alliant Energy has more than 200 facilities across three states. This provides our company and employees with direct interactions with wildlife and creates a unique opportunity for us to implement wildlife conservation and restoration efforts through a variety of partnerships.



Sturgeon restoration project marks its 18th year at Kilbourn Dam

Since 1997, as part of the state's lake sturgeon restoration effort, Alliant Energy has partnered with the Wisconsin Department of Natural Resources (WDNR) to collect sturgeon eggs below our company's Kilbourn Dam in Wisconsin Dells, Wis. Every spring, when the river's water temperature reaches the ideal spawning temperature of about 55 degrees – typically sometime between mid-April and early May – the collection occurs.



Kilbourn lake sturgeon grow at Wild Rose fish hatchery.



WDNR personnel catch the sturgeon from the Wisconsin River, place them in 900-gallon water tanks, and Alliant Energy employees help move the tanks from the water's surface to the dam's platform. The tanks remain there for several days until the fertilization process is complete. The sturgeon are then returned to the river,

and the eggs are taken by the WDNR to the State Fish Hatchery. The future sturgeon "fingerlings" are later released into the Wisconsin River with the hope that they will reproduce when matured, in about 25 years. Several hundred thousand sturgeon eggs have been gathered below the Kilbourn Dam over the past 18 years.



Alliant Energy's owned wind farms:

Bent Tree Wind Farm

- Freeborn County, Minnesota
- 201 MW
- Commercial operation in February 2011
- Owned and operated by Wisconsin Power and Light Company

Cedar Ridge Wind Farm

- Fond du Lac County, Wisconsin
- 68 MW
- Commercial operation in December 2008
- Owned and operated by Wisconsin Power and Light Company

Franklin County Wind Farm

- Franklin County, Iowa
- 99 MW
- Commercial operation in December 2012
- Owned and operated by Franklin County Wind LLC, an unregulated subsidiary of Alliant Energy

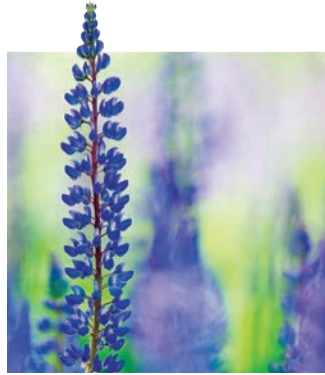
Whispering Willow-East Wind Farm

- Franklin County, Iowa
- 200 MW
- Commercial operation in December 2009
- Owned and operated by Interstate Power and Light Company

Alliant Energy partnership supports conservation of endangered Karner blue butterfly

Wisconsin boasts the world's largest population of the federally endangered Karner blue butterfly. The Karner blue was federally listed as an endangered species in 1992. Although the species is rare nationwide, it is relatively common in Wisconsin, especially where pine barrens, oak savannas and mowed corridors support wild lupine, the only food of the Karner blue caterpillar.

In 1999, Alliant Energy joined with 25 partners in a unique Habitat Conservation Plan that is based on a legal agreement between the U.S. Fish & Wildlife Service and Wisconsin Department of Natural Resources. As partners in the Plan, our field crews manage our properties and easements with consideration for the butterfly.



Our Environmental Services Department conducts wild lupine and butterfly surveys each year to identify where the butterflies are found. By identifying where the butterflies are, we can proactively plan our work to avoid negative impacts and help conserve the species for future generations.

While it is not common for us to find Karner blue butterflies in patches of wild lupine under our power lines, we do occasionally get lucky and find them. In 2014, survey crews were successful in verifying two separate sightings of the rare butterfly.

Manmade nesting platforms help bring "fish hawks" back to prominence

Ospreys – sometimes called fish hawks – are large raptors that feed almost exclusively on live fish. Although once very common, ospreys have faced many challenges due to chemical contamination of water and fish, loss of suitable nesting trees and lakefront development. Osprey numbers have increased slowly since the banning of certain pesticides, more restrictions on wetland disturbance, improved laws on shoreline protection and the installation of man-made nesting platforms.

Ospreys breed near freshwater lakes and rivers, and sometimes on coastal waters. Their nests are usually made from a large heap of sticks, and built in forks of trees, rocky outcrops, artificial platforms or offshore islets. Utility poles are another preferred nesting location. Unfortunately, active electric poles can be a hazard for the raptors. So if a nest is built there, Alliant Energy supplies a platform and a used pole that our company puts up in a safer location.



Recently, for example, we assisted with osprey nesting platforms in Marquette, Walworth and Winnebago Counties in Wisconsin, as well as near the Nekoosa Wisconsin Wastewater Treatment Plant. In 2013, our company partnered with several organizations to install nesting platforms in the Cedar Rapids, Iowa area. Alliant Energy has supported osprey restoration for many years and continues to install several nesting platforms each year.



Providing financial support for community environmental projects and education

Over the life of the Alliant Energy Foundation, our company's charitable non-profit has made investments throughout our service areas of more than \$43 million. Each year, a portion of these shareowner dollars are dedicated to environmental initiatives. Here are two examples of our Foundation's support of environmental programs and education.

Beaver Dam Lake Improvement Association

The Beaver Dam Lake Improvement Association is a non-profit organization located in Beaver Dam, Wis. Its mission is to improve and protect Beaver Dam Lake for the benefit of current and future generations. To prevent fish mortality during winters of extreme cold or heavy snowfalls, the association installed nine aerators in three areas of the lake.

The aeration keeps many acres of water open. This allows adequate oxygen levels for fish survival and is beneficial to the residents of the area who depend on the lake and its fisheries for recreation. The association was awarded a \$2,500 Alliant Energy Foundation Community Grant to support funding of the 2014 aeration project.



Friends of Camp Anokijig

Founded in 1926, Camp Anokijig (Anokijig is a Native American word meaning "We Serve") is a summer camp open to boys and girls ages 7 to 16. The camp has built a tradition of offering youth experiences that last a lifetime. The Friends of Camp Anokijig in Plymouth, Wis. is a non-profit group that supports the camp's activities. The group received a \$1,650 Alliant Energy Foundation Community Grant to fund a portion of an ongoing initiative called the Outdoor and Environmental Education Program.

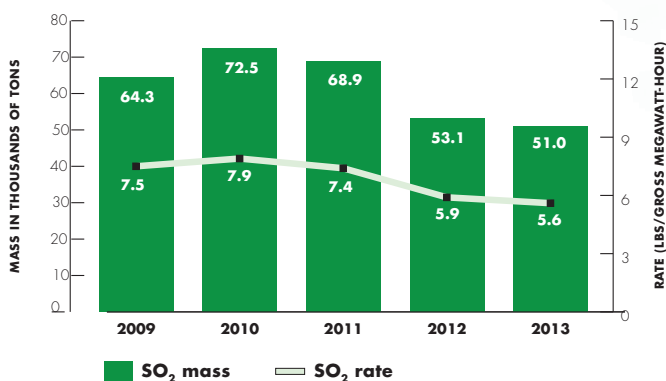
The Program's goal is to increase students' interest and appreciation for the natural world, with the intention to develop not only a lifelong attitude of stewardship of our natural resources, but also proactive promotion and advancement of environmental issues. Typically, over 2,000 students participate in the Outdoor and Environmental Education Program annually.

Fossil-fuel generation emissions – total mass and rate

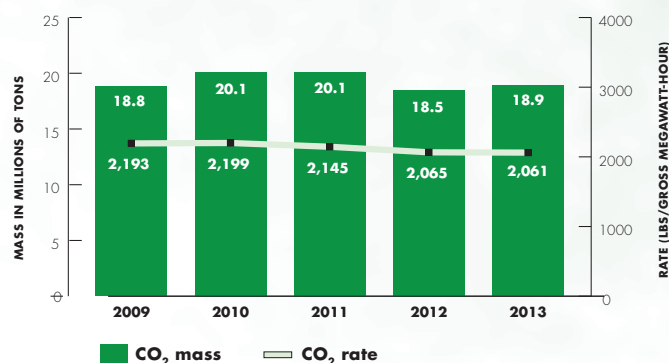
The figures presented for fossil-fuel generation emissions represent the releases to air from the production of electrical energy in a given year for the most recent five-year period (2009 to 2013). This includes all fossil-fuel electrical generating units with a design nameplate capacity of 25 MW or greater that are equipped with continuous emissions monitoring systems (CEMS). The fossil-fuel generation emissions are aggregate totals for the company's overall fleet, adjusted for Alliant Energy's share of joint-owned units. Emissions shown do not relate to any specific generating unit or any single type of fossil fuel. Emission rates are measured on the basis of MWh gross output of electricity production. Historical fluctuations in annual emissions quantities can be attributed to the nature of electricity production operations and level of dispatch needed from generating facilities to meet customer energy demands.

There are numerous factors that could cause emissions to be higher or lower during a given year including, but not limited to, weather conditions, source of fuel supply, customer energy demand, installation of air pollution controls, and retirement or addition of generation. Furthermore, the Midcontinent Independent System Operator, Inc. (MISO) is responsible for the non-discriminatory operation of the bulk power transmission system and wholesale energy markets in Alliant Energy's utility service territory. MISO's effects on how much Interstate Power and Light Company (IPL) or Wisconsin Power and Light Company (WPL) electric generating units run to meet demand for energy, such as the amount or combination of fossil fuels combusted given current market prices, cannot be predicted. These factors all cause variation of actual emissions from electricity produced. In 2013, emissions trends for Alliant Energy were lower or about the same compared to 2012.

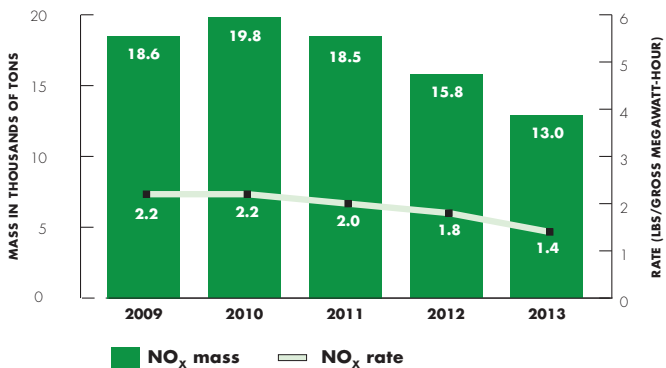
Fossil-fuel generation emissions – SO₂ (total mass and rate)



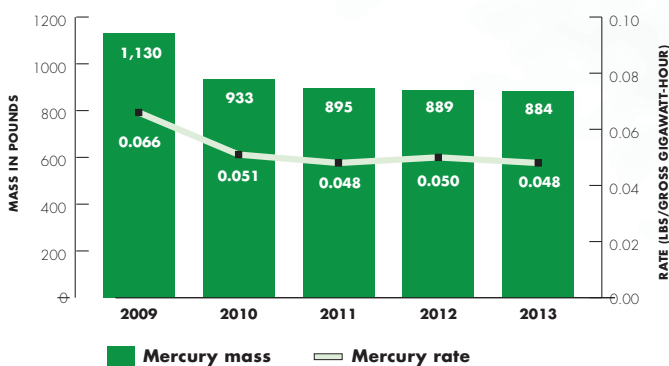
Fossil-fuel generation emissions – CO₂ (total mass and rate)



Fossil-fuel generation emissions – NO_x (total mass and rate)



Fossil-fuel generation emissions – Mercury (total mass and rate)



Alliant Energy fossil-fuel produced generation



A breakdown of the 2013 emissions data for each of Alliant Energy's regulated utilities (IPL and WPL) is provided in the table at right. In addition to total mass emissions, the produced generation emissions rate represents the IPL and WPL system totals for each utility's owned fossil-fueled electric generation. These emission rates do not take into account energy from other sources in the company's overall generation portfolio, including owned or purchased power from non-emitting generation (primarily wind and nuclear) or market purchases from fossil-fueled generation necessary to meet customer energy demands.

2013 fossil-fuel generation emissions summary for Alliant Energy's regulated utilities – WPL and IPL¹

2013 total mass emissions for produced generation from fossil fuel units ²	WPL	IPL
SO ₂ (tons)	26,797	24,175
NO _x (tons)	5,898	7,075
CO ₂ (tons)	10,110,094	8,790,928
Mercury (lbs)	384	500

2013 emissions rate for gross produced generation from fossil fuel units ³	WPL	IPL
SO ₂ (lbs/gross MWh)	5.3	5.9
NO _x (lbs/gross MWh)	1.2	1.7
CO ₂ (lbs/gross MWh)	1,995	2,142
Mercury (lbs/gross GWh)	0.038	0.061

2013 emissions rate for net electrical generation from fossil fuel units ⁴	WPL	IPL
SO ₂ (lbs/net MWh)	5.9	6.3
NO _x (lbs/net MWh)	1.3	1.8
CO ₂ (lbs/net MWh)	2,226	2,285
Mercury (lbs/net GWh)	0.042	0.065

Notes:

- (1) Information adjusted for Alliant Energy's share of joint-owned generation units. WPL also includes Alliant Energy's non-regulated natural gas-fired generation unit located in Sheboygan Falls, Wis., which is leased by WPL.
- (2) Total mass emissions includes all fossil-fuel electrical generating units with a design nameplate capacity of 25 MW or greater that are equipped with continuous emissions monitoring systems (CEMS).
- (3) Emissions rate for produced generation is based on above-listed total mass emissions and the gross MWh generated respectively by IPL and WPL owned electric generating units. The mercury emissions rate is presented in terms of gigawatt-hours (GWh).
- (4) Emissions rate for electrical generation is based on the above-listed total mass emissions and the net MWh electricity respectively for IPL and WPL owned electric generating units. The mercury emissions rate is presented in terms of gigawatt-hours (GWh).

Source: Calculated emissions use EPA-accepted continuous emission monitoring systems (CEMS) compliance information that is reported to EPA Clean Air Markets Division (CAMD) on EPA electronic data reports for SO₂, NO_x, and CO₂. In addition, mercury CEMS data is based on EPA protocols published in the Code of Federal Regulations (CFR) at 40 CFR Part 75 and 40 CFR Part 63. These figures include only the Alliant Energy ownership portion of operated electric generating facilities.

Focus on environmental controls

Alliant Energy's air quality control systems program will use a combination of technologies to address nitrogen oxides (NO_x), sulfur dioxide (SO₂), mercury (Hg) and other air pollutants, reducing emissions by as much as 90%.

Selective Catalytic Reduction (SCR), is a post-combustion control where either ammonia or urea are injected into the boiler exhaust gas, which then passes through a catalyst bed that enables a chemical reaction to take place. The result is conversion of NO_x emissions into harmless nitrogen gas and water before being released from the power plant stack into the atmosphere.

Scrubber, (also known as flue gas desulfurization or "FGD") is a post-combustion control that injects lime or lime slurry into the stream of gases leaving the generating facility boiler to remove SO₂ and capture it in a solid or liquid waste byproduct.

Baghouse with carbon injection, is a post-combustion control that injects carbon particles into the stream of gases leaving the generating facility boiler to facilitate the capture of mercury in filters or bags.

Greenhouse gas emissions reporting rule

In December 2009, the EPA issued a rule that requires greenhouse gas (GHG) emissions reporting. The annual reporting began for the calendar year 2010, and compliance requires that sources above certain threshold levels monitor and report emissions. The GHG emissions covered by the final EPA reporting rule are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), perfluorocarbons and other fluorinated gases. Emissions of GHG are reported at the facility level in CO₂-equivalent (CO₂e) and include those facilities that emit 25,000 metric tons or more of CO₂e annually.

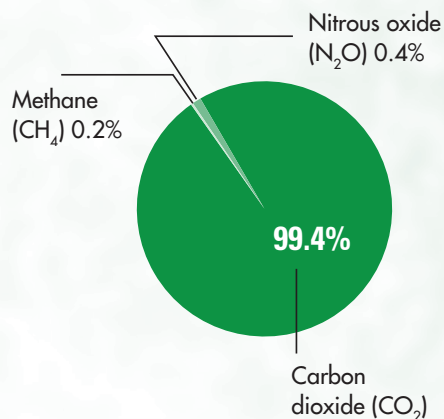
The final rule applies to electric utility generation and natural gas distribution operations at Alliant Energy. The EPA Mandatory Greenhouse Gas Reporting Rule protocols issued in the Code of Federal Regulations (CFR) at 40 CFR Part 98 apply to the monitoring and reporting of these emissions. More specifically, Subpart C and Subpart D protocols are used to calculate GHG emissions from electric generation facility stationary combustion sources. Subpart D protocols include GHGs from electric generating units equipped with continuous emissions monitoring systems (CEMS) and Subpart C covers GHGs from auxiliary combustion equipment used to support plant operations. In addition, Subpart NN and Subpart W protocols are used to estimate GHG emissions resulting from natural gas distribution operations. Subpart NN requires estimation of indirect GHG emissions from the combustion of the natural gas distributed to customers. Subpart W provides methodologies to estimate the amount of fugitive losses for volatile GHGs from natural gas distribution operations.

Results for the GHG emissions report filed for the 2013 calendar year are summarized to the right. Total greenhouse gas emissions reported to EPA were 26.6 million metric tons of CO₂e. The CO₂e is a measure used to compare the emissions from various greenhouse gases based upon their Global Warming Potential (GWP). The CO₂e for a gas is derived by multiplying the mass of the gas by the associated GWP and is determined as follows:

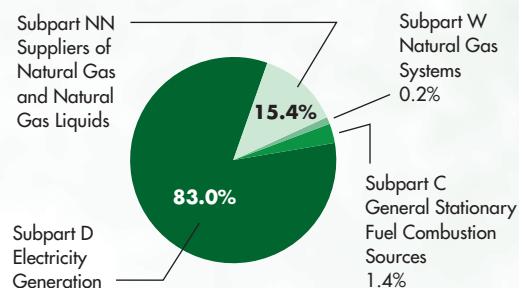
Total CO₂e = Summation of (million metric tons of a gas) x (GWP of the gas)

Total CO₂e = CO₂ (million metric tons) x 1 + CH₄ (million metric tons) x 25 + N₂O (million metric tons) x 298

EPA reported 2013 greenhouse gas emissions by type as a percentage of total CO₂e



EPA reported 2013 greenhouse gas emissions by requirement as a percentage of total CO₂e



CO₂e represents the total greenhouse gas emissions from utility operations as required by EPA including electric generating unit CO₂ emissions that are also reported for other EPA programs. The primary GHG emitted from Alliant Energy's utility operations is CO₂ from the combustion of fossil fuels at its larger electric generating facilities, these emissions are primarily measured with CEMS. The CO₂ emissions reported for EPA's GHG program are based on operational control and do not adjust for equity share of jointly owned electric generating units. Alliant Energy continues to update its emissions monitoring methodologies to capture all the GHG emissions data required to comply with the EPA's mandatory GHG reporting rule as these requirements are periodically revised.

Source: Annual EPA Mandatory GHG Report submission.

Toxic Release Inventory

The Emergency Planning and Community Right-to-Know Act (EPCRA) issued by the EPA in 1986 provides for public access to information on chemicals from industrial manufacturing operations. This regulation includes requirements for facilities to report data annually on certain chemical compounds through the Toxics Release Inventory (TRI) program.

The EPA's TRI program requires coal-fired power plants to submit annual release reports. Similar to any soils found on or below the surface of the Earth, coal contains small trace amounts of various chemicals. During the coal combustion process, these trace chemicals react, forming compounds that are released into the air or water or contained within solid wastes sent to landfills or used elsewhere. Depending on the amount of coal burned at an electric generating unit, these chemical compounds can add up to reportable amounts under the EPA's TRI requirements.

The amount of these trace chemical compounds is not measured directly. Rather, estimated amounts are calculated based on chemical analysis of waste stream samples, or by using EPA-approved, science-based emissions factors. As shown in the table, year-to-year variance is observed for individual toxic compounds. Factors contributing to this variance include:

- Coal is not a homogenous substance; the concentrations of trace chemicals in coal deposits can vary within a single mine, and even more significantly from different mines.
- New emissions rate

data and calculation methodologies are continuously being developed based on better technology and measurement science which, in turn, results in changes to the emission factors used.

- The addition of new air pollution control technology can change the combustion chemistry as well as the amounts and types of emissions.

Alliant Energy electric generating facilities reported toxic release inventory (TRI)

(Thousands of Pounds)

Chemical	2011	2012	2013
Barium compounds	1,635	1,030	764
Chromium compounds	5	1	0
Copper compounds	30	13	7
Lead compounds	17	7	7
Manganese compounds	47	33	21
Mercury compounds	1	1	1
Nickel compounds	18	0	0
Vanadium compounds	113	28	13
Zinc compounds	118	294	184
Hydrochloric acid	223	216	264
Hydrofluoric acid	332	246	286
Sulfuric acid	776	256	248
Ammonia	17	5	28
Other hydrocarbons*	<1	<1	<1
Totals	3,333	2,131	1,824

Alliant Energy 2013 TRI breakdown

Chemical	Fugitive air emissions	Stack air emissions	Discharges to water	On-site landfill	Off-site landfill
Barium compounds	0.2%	10.8%	3.0%	0.0%	86.0%
Copper compounds	0.1%	23.8%	11.0%	65.1%	0.0%
Lead compounds	0.1%	11.2%	9.9%	23.4%	55.4%
Manganese compounds	23.3%	20.0%	1.9%	0.0%	54.8%
Mercury compounds	0.0%	93.8%	0.2%	0.1%	5.9%
Vanadium compounds	0.2%	11.0%	0.0%	31.4%	57.4%
Zinc compounds	0.0%	1.7%	0.4%	0.0%	97.9%
Hydrochloric acid	0.0%	100.0%	0.0%	0.0%	0.0%
Hydrofluoric acid	0.0%	100.0%	0.0%	0.0%	0.0%
Sulfuric acid	0.0%	100.0%	0.0%	0.0%	0.0%
Ammonia	0.9%	99.1%	0.0%	0.0%	0.0%
Other hydrocarbons*	86.0%	14.0%	0.0%	0.0%	0.0%

Source: Annual Form R submitted to the U.S. Environmental Protection Agency (EPA) under the toxic release inventory (TRI) program of the Emergency Planning and Community Right-To-Know Act (EPCRA).

* "Other hydrocarbons" include Benzo(ghi)perylene, Dioxin and Furans, Napthalene and Polycyclic Aromatic compounds.

Coal combustion product management

Coal combustion products (CCP) are what remain after the direct combustion of coal in power plants to generate electricity. There are different types of CCP:

- Fly ash is a very fine powder-like particle, ranging in color from tan to black. It is collected by emission controls, such as electrostatic precipitators (ESP) and baghouses, which prevent it from being released into the air through the stacks of the plant.
- Bottom ash is a coarse, granular sand-like material collected in the bottom of the boilers.
- Boiler slag is black, shiny and angular. It is coarser than bottom ash and also collected in the bottom of boilers.

CCPs are comprised of melted sand and lime with smaller amounts of oxides containing aluminum, iron, magnesium, sulfur and trace materials. These same ingredients are also found in mud, silt or soil.

How is coal ash reused? Each type of coal ash is reused in different ways. Boiler slag can be used for sandblasting or as the grit on roofing shingles. Bottom ash can be used as a gravel substitute or as fill for embankments. Fly ash can be used as a substitute for cement in concrete. The reconstructed I-35W bridge in Minneapolis, the Ronald Reagan Government Office Building that is home to the EPA in Washington, Willis Tower in Chicago, and Freedom Tower, the complex being built on the former site of the World Trade Center in New York City, are all using or have used concrete containing fly ash in their construction.

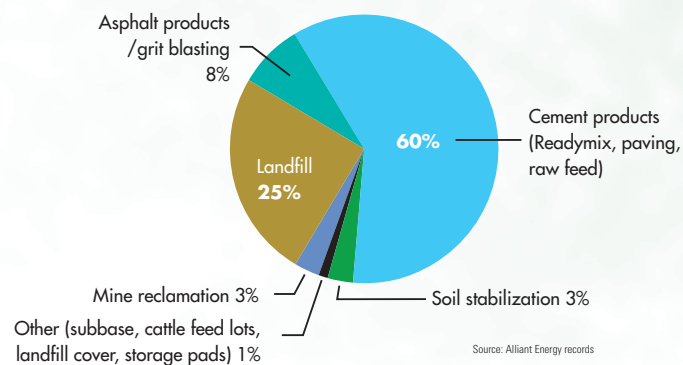
In 2013, Alliant Energy utility companies were able to beneficially use over 440,000 tons of CCP or about 75%, thereby diverting it from being placed in a landfill as a waste material. The utilization rate varies from year to year due to variation in local construction activity and changes in approved uses for CCP.

Alliant Energy coal combustion product 2013 usage

Use category	IPL (tons)	WPL (tons)
Cement products (Readymix, paving, raw feed)	158,265	198,364
Soil stabilization	12,310	3,176
Mine reclamation	—	17,744
Other (subbase, cattle feed lots, landfill cover, storage pads)	2,571	—
Asphalt products/grit blasting	—	48,023
Total	173,146	267,307

Source: Alliant Energy records

Alliant Energy 2013 coal combustion product management



Water use

Alliant Energy recognizes the significance of water as a natural resource. Primary watersheds for Alliant Energy operations include the Great Lakes and Upper Mississippi River drainage basins of the United States. A watershed is the area that drains to a common waterway, such as a stream, lake, river, estuary, wetland, aquifer or even the ocean. The primary source of water to support operations at each of Alliant Energy's generation facilities that produces electricity to supply base load energy demands is provided below. In addition, the company's power plants may supplement water use with well water and city water.

Utility	Power plant	Primary water source*
WPL	Columbia	Wisconsin River
WPL	Edgewater	Lake Michigan
WPL	Nelson Dewey	Mississippi River
WPL	Riverside	Rock River
IPL	Burlington	Mississippi River
IPL	Dubuque	Mississippi River
IPL	Emery	Clear Lake Sanitary District**
IPL	Fox Lake	Fox Lake
IPL	ML Kapp	Mississippi River
IPL	Lansing	Mississippi River
IPL	Ottumwa	Des Moines River
IPL	Prairie Creek	Cedar River
IPL	Sutherland	Well water***

* Non-contact cooling water is returned to the river or lake that is the primary source of water, except as noted below.

** The Emery power plant uses treated sanitary water, also called "grey water," from the local Publicly Owned Treatment Works (POTW) as the primary supply and return.

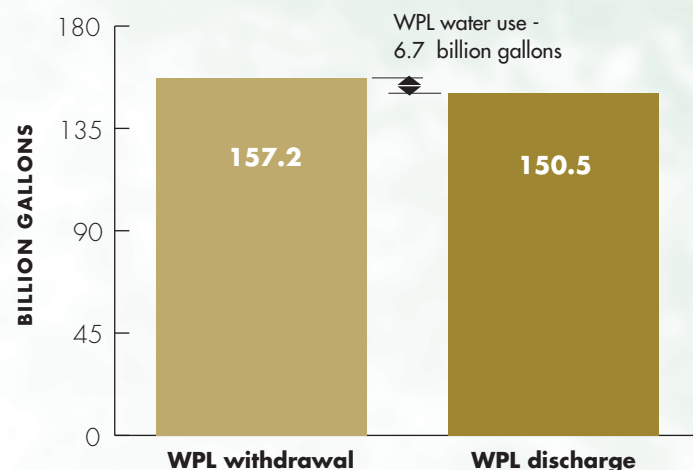
*** The Sutherland power plant uses groundwater as the main supply and returns it to the adjacent Iowa River.

The predominant use of water is for the utility's production of electricity in order to make steam and cool equipment. Much of this is "non-contact" cooling water that is pumped through the power plant in closed-loop piping systems that allow for the cooling of process equipment without ever coming into direct contact with it. Therefore, the vast majority of water discharged from the company's power plant operations is returned as clean water that meets federal and state regulations for freshwater quality.

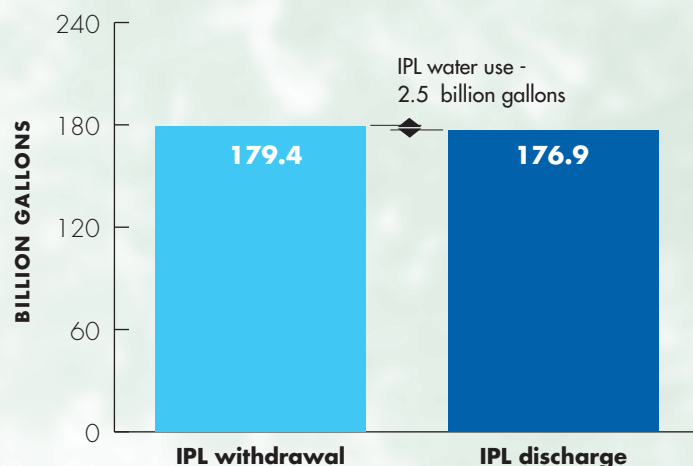
Our company works to conserve water through best management practices and further ensures the appropriate treatment of process wastewaters prior to release into water bodies. In 2013, the estimated total IPL and WPL water usage from base load utility generation operations was 9.2 billion gallons, which is approximately equivalent to 534 gallons/MWh. Water use for 2013 is determined as the difference between withdrawal and discharge, taking into consideration estimated amounts of utility process water consumed due to evaporation. Water withdrawals include city water, groundwater, and river or lake surface water intake. Water discharge includes once-through cooling, cooling tower blow down and ash pond effluents.

Source: Alliant Energy Internal Records and NREL Report: A Review of Operational Water Consumption and Withdrawal Factors for Electricity Generating Technologies (March 2011 Report #NREL/TP-6A20-50900).

WPL 2013 water use



IPL 2013 water use



Renewable energy resources

Alliant Energy is subject to Renewable Energy Standards (RES) in the states covering the company's utility service territory that establish the amount of energy electric utilities must supply from renewable resources. The requirements vary in structure and compliance requirements for each state as follows:

Iowa – IPL is required to purchase or own 49.8 MW of nameplate capacity from alternate energy or small hydro facilities located in its service area.

Minnesota – IPL's total Minnesota retail electric sales supplied with renewable energy sources must be at least 12% currently and 17% by 2016, 20% by 2020 and 25% by 2025. In addition, IPL's total Minnesota retail electric sales supplied with solar power must be at least 1.5% by 2020. IPL currently estimates that approximately 10 MW of solar power would be needed for compliance with this requirement by 2020.

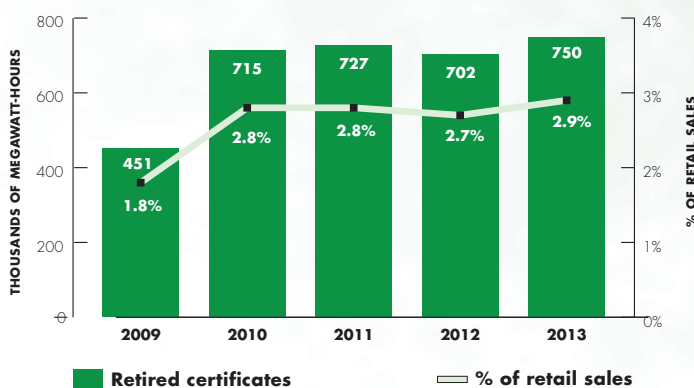
Wisconsin – WPL was required to supply a minimum of 5.28% of its total Wisconsin retail electric sales with renewable energy sources by 2010 and will be required to increase this amount to 9.28% by 2015.

The company has been able to meet and expects to exceed the RES future requirements through company-owned renewables and purchase power agreements (PPAs), primarily from wind generation. Therefore, Alliant Energy is able to sell renewable energy credits (RECs) on the national renewable energy market. RECs are tradable, non-tangible energy commodities in the United States that represent proof that 1 MWh of electricity was generated from an eligible renewable energy resource (renewable electricity). These certificates can be sold and traded, giving the owner of the REC claim to have purchased renewable energy.

In states that have a REC program, a green energy provider (such as a wind farm) is credited with one REC for every 1,000 kWh, or 1 MWh, of electricity it produces. A tracking system assigns each REC a unique identification number to make sure it doesn't get double-counted. The green energy is then fed into the electrical grid. The accompanying REC can then be used for compliance with the RES or excess RECs may be sold on the open market. The RECs sold by Alliant Energy may be sold anywhere, including to buyers not located in the states served with power from IPL or WPL. These REC sales benefit Alliant Energy customers, because proceeds are then returned as a credit to reduce the amount charged for the electricity they purchase.

The table below provides the status of REC sales up until the time of publication of this report. These sales may include RECs originating from both company-produced and/or purchased wind energy sources. Through this period, the amount of excess RECs sold by the company is equivalent to approximately 5,836,798 MWh of generation.

Retired renewable energy credits for compliance with renewable portfolio standards



Alliant Energy REC sales in equivalent megawatt-hours							
Year wind was generated	2007	2008	2009	2010	2011	2012	2013
IPL	195,000	193,237	200,854	467,672	900,805	964,000	1,067,226
WPL	—	—	—	288,004	550,000	485,000	525,000

Source: Alliant Energy records. Note that the above information is based on known REC sales and retirements up until the time of publication of this report and could change should additional RECs be sold or retired in the future.

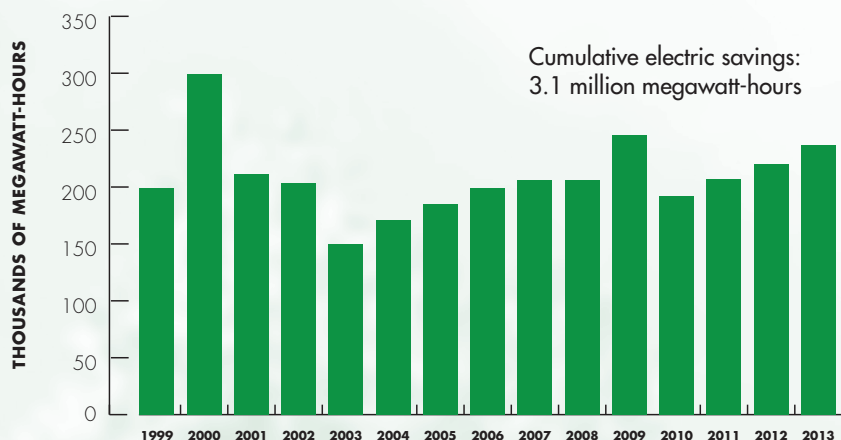
Energy efficiency

Energy efficiency is a significant part of Alliant Energy's strategy to provide reliable, cost-effective and environmentally sound electric and natural gas utility services. Alliant Energy's programs for natural gas conservation began in the mid-1970s. Programs for conserving electricity were developed and fully integrated into energy planning and customer services by the early 1980s.

Alliant Energy is committed to energy-efficiency programs because they represent an important means for our company to reduce environmental impacts inherently associated with energy production and energy use. Alliant Energy's energy-efficiency portfolio includes a mix of products and programs targeted at reducing peak demand and total energy usage. Energy efficiency is a practical energy option that provides customers with the opportunity to conserve energy while making a positive impact on the environment.

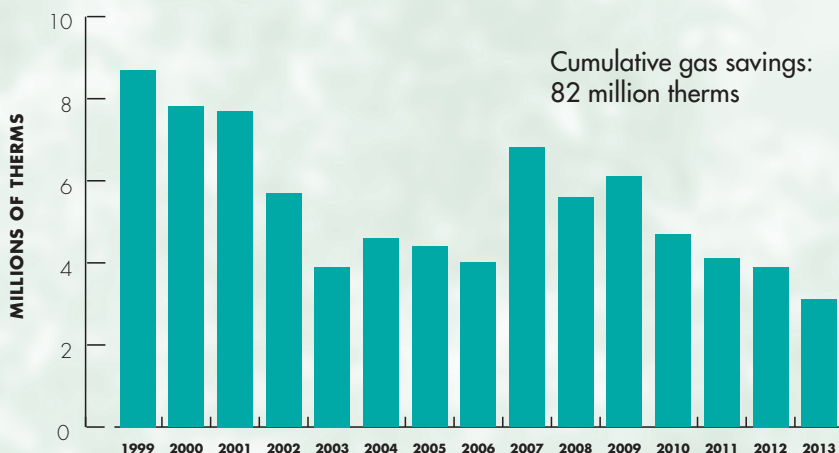
In 2013, Alliant Energy's energy-efficiency programs resulted in new, additional savings of over 237,000 MWh of electricity and over 3.1 million therms of natural gas during this one year alone. Also, additional savings not shown here are offered in Wisconsin through the Focus on Energy (FoE) program. Starting in 2001, the energy savings for Wisconsin residential and some business programs became part of the consolidated FoE program that is managed and tracked separately by the state of Wisconsin. In 2013, WPL contributed 1.2% of its annual retail utility revenues to help fund FoE's statewide energy efficiency and renewable energy resource program in Wisconsin. In Iowa and Minnesota, these programs are operated directly by utility companies under the oversight of regulatory agencies.

Annual incremental electricity saved through Alliant Energy programs



Source: Alliant Energy records

Annual incremental gas saved through Alliant Energy programs

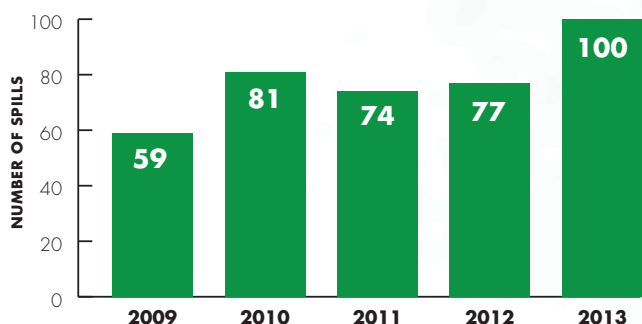


Source: Alliant Energy records

Reportable spills

In 2013, there were 100 releases of hazardous material or spills reported to governmental agencies. The majority of these spills are caused by equipment failures/leaks, vehicle accidents and electrical equipment damaged by high winds and flying debris during storm activity. All spills were cleaned up, and any contaminated soils or debris properly disposed.

Spills reported to regulatory agencies

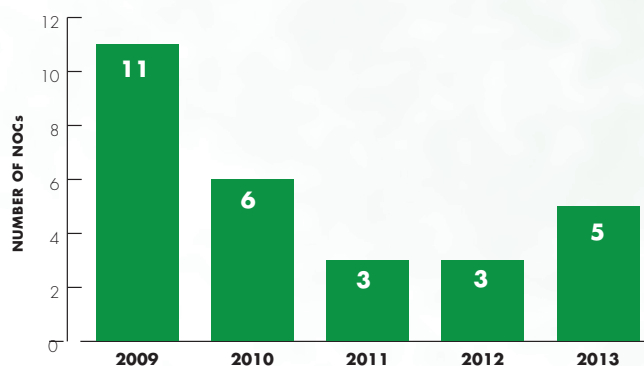


Source: Alliant Energy records

Notices of non-compliance

Alliant Energy strives to operate in compliance with all environmental requirements. However, there are occasions when the company has missed reporting deadlines, exceeded permit levels or otherwise violated regulations. These instances of non-compliance can result in fines or penalties. An environmental Notice of Non-Compliance (NOC) is a formal notice of non-compliance from a regulatory agency, including notices of violation (NOV). All notices are investigated and corrective measures are implemented according to local, state and federal regulations. Alliant Energy takes these NOCs seriously and further tracks a broader set of environmental incidents such as customer or citizen complaints or unintentional impacts to wildlife from company operations. This additional information allows the company to identify and implement improvements in current environmental compliance and operational practices. In 2013, Alliant Energy was issued five NOCs; however, none of these incidents resulted in an enforcement action.

Notices of non-compliance (NOC)



Source: Alliant Energy records

Manufactured gas plant sites

Manufactured gas plants (MGPs) roasted coal, coke and oil to produce gas as fuel for lighting, heating and cooking between 1820 and 1950. This process was phased out with the widespread availability of natural gas.

Since 1990, IPL and WPL have been reducing environmental liability and restoring land for public use at former MGP sites through the cost-effective management and clean up of the coal tar and other residues that contaminated soil, groundwater and sediments in waterways. Through previous or present ownership, IPL is responsible for 32 former sites in Iowa, six sites in Minnesota and two sites outside of our service territory. WPL has responsibility for 14 sites in Wisconsin.

Each MGP site goes through a multi-year process to investigate the extent of contamination, determine clean-up options, perform remedial actions, conduct long-term groundwater monitoring and achieve site closure from the regulatory agencies. Site managers work closely with contractors, landowners, communities as well as state and federal regulators to meet all environmental rules and find appropriate uses for the reclaimed land.

Alliant Energy has focused clean-up efforts on the sites with the highest risk, with only a few major clean ups remaining. The majority of sites are now in the long-term monitoring phase to document that residual contaminant concentrations are stable or declining. To assure that risk associated with residual impacts is properly managed for future land uses, the company follows state-based administrative regulatory processes to document site status.

Once all requirements are met, state and federal agencies issue “No Further Action” or “Regulatory Closure” letters, meaning the site no longer poses a threat to human health or the environment. The site is then considered “closed” and released from further remediation or monitoring requirements. Although progress continues, Alliant Energy’s total closed site count as of the end of 2013 remained unchanged.

Manufactured gas plant sites



Source: Alliant Energy records

Research and Development

In 2013, Alliant Energy invested \$3.2 million in various research and development (R&D) programs. This amount includes both discretionary research funds as well as funds collected from customer billings as mandated by state regulations.

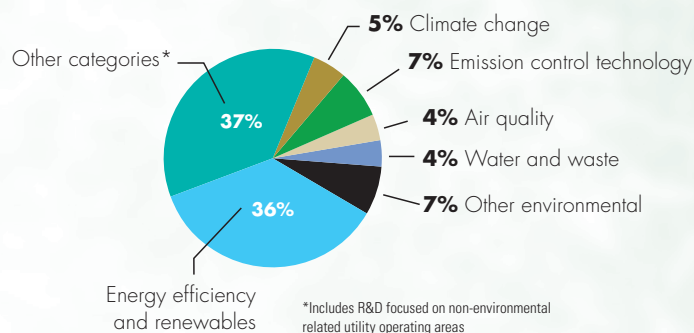
External research and development dollars spent



Source: Federal Energy Regulatory Commission (FERC) Form 1 filings.

Although a majority of R&D dollars are spent on collaborative research programs overseen by the Electric Power Research Institute (EPRI), Alliant Energy also provides funding to other important partners: Iowa State University, University of Minnesota, University of Wisconsin-Platteville, Iowa Energy Center, the Iowa Center for Global and Regional Environmental Research, and the Energy Center of Wisconsin. Alliant Energy's participation targets a diverse range of R&D areas related to improving environmental performance – in fact, these represent approximately 63% of the total 2013 investment.

2013 R&D for improving environmental performance



LEED progress report

We strive to operate all of our facilities in a sustainable manner at Alliant Energy. To help us do that in a measurable way, Alliant Energy pursues Leadership in Energy and Environmental Design (LEED®) certification for many new building construction projects.

The LEED program was created by the U.S. Green Building Council (USGBC). It is a nationally accepted benchmark for the design, construction and operation of high performance “green” buildings. LEED promotes a whole-building approach to sustainability by looking at five key areas: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. Alliant Energy also retires Renewable Energy Credits (RECs) for the company’s LEED facilities’ energy use.

Site	Location	LEED Status	Achievement Date
Cedar Ridge Wind Farm Operations Center	Eden, Wisconsin	Gold	March 2009
Baraboo Operations Center	Baraboo, Wisconsin	Silver	January 2010
Iowa Technical Training Center	Marshalltown, Iowa	Gold	February 2010
Sheboygan Operations Center	Sheboygan, Wisconsin	Gold	June 2010
Osceola Operations Center	Osceola, Iowa	Certified	June 2010
Whispering Willow Wind Farm Operations Center	Iowa Falls, Iowa	Gold	July 2010
Bent Tree Wind Farm Operations Center	Hartland, Minnesota	Certified	August 2011
Prairie du Chien Operations Center	Prairie du Chien, Wisconsin	Gold	August 2011
Lamberton Operations Center	Lamberton, Minnesota	Certified	May 2013
Ottumwa Generating Station Administration Building	Chillicothe, Iowa	Certified	October 2013
Ottumwa Operations Center	Ottumwa, Iowa	Silver	January 2014

Current information about
Alliant Energy is available at
alliantenergy.com

**Alliant Energy
Corporate Headquarters**

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Operating Headquarters

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Cedar Rapids, IA 52401

General information
1-800-ALLIANT

Shareowner Services
1-800-356-5343



Exhibit C

Alliant Energy Comment Submission on EPA's Clean Power Plan

**COMMENTS OF ALLIANT ENERGY CORPORATION
ON CARBON POLLUTION EMISSION GUIDELINES
FOR EXISTING STATIONARY SOURCES:
ELECTRIC UTILITY GENERATING UNITS**

Docket No. EPA-HQ-OAR-2013-0602

December 1, 2014

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I. Executive Summary

Alliant Energy Corporation (Alliant Energy), headquartered in Madison, Wisconsin (NYSE:LNT) provides regulated electric and natural gas service to approximately one million electric and 400,000 natural gas customers in the states of Iowa, Wisconsin, and Minnesota, with annual revenue of approximately \$3 billion and assets of approximately \$11 billion. Alliant Energy operates as two separate utility subsidiaries, Interstate Power and Light Company (IPL) and Wisconsin Power and Light Company (WPL), which are engaged primarily in the generation and distribution of electric energy and the distribution and transportation of natural gas. IPL and WPL are regulated by the Iowa Utilities Board (IUB), the Minnesota Public Utilities Commission (MPUC), the Wisconsin Public Service Commission (PSCW), and the Federal Energy Regulatory Commission (FERC).

Our company strongly believes in our commitment to delivering energy that our customers and communities count on – safely, efficiently and responsibly. Alliant Energy traces its roots back nearly 100 years with a proven track record of developing innovative solutions to changing environmental requirements and providing energy to our customers while respecting our natural resources. Our company's experience supports our perspective that it is not a question of whether electric utilities can adapt to meet the U.S. Environmental Protection Agency's (EPA's) Clean Power Plan carbon dioxide (CO₂) reduction goals, rather what is the most effective approach that assures reliable and affordable power while providing a glide path for meeting these new goals.

Our company is well on its way to transforming our generating fleet to one that has cleaner and more efficient units by installing emissions controls and improving the efficiency of our newest and largest generating units and retiring our older less efficient units. We are expanding natural gas-fired generation, renewable resources remain an integral part of our generation portfolio, and we also successfully partner with customers on energy-efficiency programs.

Our company's investments to achieve a responsible resource future for our customers exceed \$3 billion since 2005 and we expect to invest an additional \$3 billion from 2015 through 2023 to further our efforts to transform our resource portfolio. Alliant Energy also continues to support robust energy-efficiency programs, because this is good both for our customers and the environment by providing beneficial carbon reductions. Since 2005, our customers have contributed over \$600 million to support energy efficiency programs and our investments in energy efficiency programs from 2014 to 2018 are expected to contribute another \$500 million.

We believe EPA's final Clean Power Plan should encourage early action and positively recognize these efforts. Our company will continue working constructively with our state regulators on this path forward to compliance with future carbon reductions in a manner consistent with our previous approach to meet environmental commitments.

More broadly, Alliant Energy recommends that the EPA's Clean Power Plan address the following overarching principles and objectives:

- Adopt rules that encourage proactive compliance actions, recognize and provide credit for good faith actions to comply with both existing requirements and anticipated regulations.
- Support a smooth transition to a lower carbon future, provide states and impacted utilities with a more realistic timeframe in order to conduct reliability assessments and prepare for initial compliance with CO2 reduction goals.
- Allow broad flexibility in compliance measures allowed to achieve Clean Power Plan goals as well as enable states and utilities to lead decisions on plan implementation that best complements established regional energy market systems.
- Reflect the interconnected nature of the power system and assure that all utility investment is counted equitably for home state compliance to acknowledge customers paying for clean energy resources that may be located out-of-state.

The EPA's Clean Power Plan proposal to regulate utility emissions reductions "beyond the power plant fenceline" is both precedent-setting and far-reaching making its implementation highly complex. To be successful, accurate data and appropriate planning assumptions need to be factored into the EPA's Best System of Emissions Reduction (BSER) analyses. This recognition is critical to establishing technically sound and feasible state-level CO2 reduction goals that will be achievable in the final Clean Power Plan rule. Accordingly, Alliant Energy respectfully submits the following comments on the EPA's Proposed Clean Power Plan to reduce CO2 emissions from existing fossil-fueled electric generating facilities.

Alliant Energy further supports comments submitted for this docket by the Electric Power Research Institute (EPRI), Edison Electric Institute (EEL), and the Midcontinent Independent System Operator, Inc. (MISO). The comments provided herein are intended to supplement those submissions with specific policy and technical issues relevant to Alliant Energy's utility operations.

II. Alliant Energy's Actions Support Responsible Resources

The three key components of Alliant Energy's strategic plan include providing electricity and natural gas at competitive costs, ensuring highly reliable utility service, and focusing on the responsible use of our generation fleet so that our company can provide energy flexibility for our customers. Since 2005, Alliant Energy has transformed our fleet through various actions resulting in lower emissions including reducing CO₂ by approximately 15% below 2005 levels. In this regard, Alliant Energy's past and future actions highlighted below include efforts initiated with the expectation of future carbon regulations that align with the EPA's proposed Clean Power Plan.

Fuel-switching and Retirements

Alliant Energy's strategy includes the retirement of, and fuel switching at, several older, smaller and less efficient electric generating units (EGUs). In total, since 2005 Alliant Energy has over 1,400 megawatts (MW) (nameplate) of fossil-fueled generation that has or will fuel-switch from coal to natural gas, be retired, or both by 2020.

Power Plant Efficiency Improvements

Alliant Energy continues to invest in generation performance and reliability in order to ensure the operating efficiency of our coal-fired EGUs. This includes both ongoing work practices and periodic equipment upgrades. These performance and reliability upgrades will contribute towards reducing the CO₂ emissions rate at our newer, larger, and more efficient power plants including several significant heat rate improvement projects planned for completion prior to 2020.

Renewable Resources and Nuclear

Alliant Energy has continued to expand zero-carbon generation through our long-term energy resources strategy. Our utilities generate and acquire energy from renewable resources beyond our state renewable targets. Our company owns hydroelectric generators that have been in operation for over a century in Wisconsin at the Kilbourn and Prairie du Sac plants.

Alliant Energy has been purchasing wind power since 1997. We currently have 470 MW of wind purchased power agreements (PPAs) in-place. In 2008, our first wholly-owned wind farm commenced operation. Alliant Energy currently owns and operates four wind farms with a total nameplate capacity of 568 MW.

In Wisconsin, Iowa and Minnesota approximately 1,000 customers of Alliant Energy have installed some form of renewable energy generation. Together, this group of customers

will have the ability to generate up to 47 MW of energy based on total rated nameplate capacity installed through 2013.

In 2013, IPL extended its most significant PPA obtaining nuclear power from the Duane Arnold Energy Center (DAEC) that includes 431 megawatts of energy and capacity through February 2025.

Energy Efficiency

Alliant Energy continues to support robust energy-efficiency programs, because this is good both for our customers and the environment by providing beneficial carbon reductions. Our company has been actively offering energy efficiency programs since 1990 either through utility-administered programs in its Iowa and Minnesota jurisdictions or through state-administered programs in its Wisconsin service territory. Since 2005, our customers have contributed over \$600 million to support electric and natural gas energy efficiency programs. Alliant Energy's approved customer-funded budget for energy efficiency programs from 2014 to 2018 include another \$500 million.

III. Alliant Energy's Position on the Clean Power Plan

Alliant Energy's strategy has been built on flexibility with an expectation of future carbon reductions. We are currently pursuing a course that supports a transition to a cleaner and more responsible energy future. We believe EPA's proposed Clean Power Plan is a continuation of our journey in that direction.

In order to provide our customers with affordable and reliable power, Alliant Energy believes that EPA's final guidelines require additional consideration to address the following:

- Consider an earlier, more-representative multi-year baseline.
- Recognize and provide credit for early action to incent companies for proactive actions taken, and not to penalize them for such actions.
- Modify the BSER Building Blocks to assure technically sound and accurate goals that reflect the interconnected power system in which utilities operate.
- Ensure that customers will receive the benefit of the utility investments that they paid for, even if investment is located in another state.
- Eliminate the interim goal and let States establish the 2030 glide path to allow adequate time to reliably achieve compliance.
- Provide broad flexibility that supports as many levers as possible for compliance measures including new natural gas-fired generation.

- Finalize equitable state-specific goals that allow for multi-state or out-of-state solutions for compliance.
- Consider that utilities must ensure reliability and operate in energy markets that maintain regional dispatch to balance load at least cost.

Alliant Energy provides these comments to emphasize to the EPA that its past regulations have encouraged proactive actions by companies, and the Clean Power Plan should also reinforce such actions. Our company's investments in clean energy resources and air quality control systems exceeded \$3 billion from 2005-2014 and our company expects to invest another \$3 billion from 2015 through 2023. Our company anticipates that EPA's Clean Power Plan will incrementally increase these costs.

Alliant Energy submits that the EPA should address at least four important issues to better assess and manage costs. First, EPA must credit early action by utilities to recognize the significant financial investments already made in clean energy and to create a rule that is supported by policy that encourages early and proactive action. Second, EPA's estimate of costs needs to include construction of new infrastructure including natural gas distribution and transmission that were inadequately factored into the proposed rule. Third, EPA's assumptions for renewable resources deployment and energy savings measures need to be further vetted to factor in state-specific circumstances that are likely to increase these costs. Fourth, EPA's overall costs need to be increased because the currently proposed compliance timeframe, specifically commencement of interim goals in 2020, will result in compressed decision-making and inefficient state plan development. Therefore, EPA's final rule should seek to remedy these gaps by providing a more complete cost assessment as well as better manage costs by recognizing early actions by utilities and including appropriate lead time for planning and implementation of compliance measures.

Table 1 provides an overall summary of recommendations to improve the feasibility and achievability of the EPA's final guidelines relevant to key elements of our company's position. Alliant Energy's comments on specific aspects of EPA's proposed Clean Power Plan that explain the significance and rationale for these recommendations are further detailed below.

Alliant Energy Public Comment Submission on EPA's Proposed Clean Power Plan
Docket ID: EPA-HQ-OAR-2013-0602

Table 1. Summary of Alliant Energy Recommendations on the EPA's Proposed Clean Power Plan		
Key Element	Recommendation	Fed. Reg. Reference
Baseline	Apply a multi-year baseline - at a minimum, the three year period from 2010 - 2012 or earlier.	34896, 34918-34919, 64553
Credit for early action	Provide credit for utility actions that have reduced CO2 since 2005 and prior to the baseline period.	34918-34919, 64545
Credit for early action	Provide credit for post-baseline/pre-compliance CO2 emission reduction-related actions and allow banking of excess reductions during program implementation.	34918-34919, 64545
Block 1 Heat Rate Improvement	Allow states to complete a case-by-case evaluation that considers both the potential for and cost-effectiveness of heat rate improvement projects on a net basis at individual EGUs.	34856, 34860-34862
Block 1 Heat Rate Improvement	Provide credit for pre-2020 efficiency projects; factor in auxiliary power needed to operate air emission control systems; and assume no changes for units that will retire or fuel-switch to natural gas before 2020.	34856, 34860-34862
Block 2 Increased Gas Dispatch	Allow states to determine what level of redispatch is feasible and the reasonable schedule for implementing natural gas-fired combined cycle (NGCC) redispatch. Alternately, the EPA should assume a ramp-up period for implementing redispatch by phasing in Block 2 gradually over time, especially if the interim goals remain in EPA's final guidelines.	34857, 34865-34866
Block 2 Increased Gas Dispatch	Rather than use the nameplate rating, use the demonstrated net capacity at which units actually operate to determine NGCC generation redispatch.	34857, 34865-34866
Block 2 Increased Gas Dispatch	Block 2 alternative approaches offered in EPA's Notice of Data Availability (NODA) including applying a minimum state-level of gas dispatch or a regional approach should not be applied in the final guidelines because these need to be better justified, details clarified, and outcomes analyzed and issued for public comment.	64546-64551
Block 2 Increased Gas Dispatch	EPA's final guidelines must consider the role that the Federal Energy Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC), Regional Transmission Organizations (RTOs), and Independent System Operators (ISOs) have in assessing technical feasibility and reliability implications of Building Block 2.	34857, 34865-34866
Block 2 Increased Gas Dispatch	Due to the interconnected nature of the electric and natural gas systems, allow sufficient time for states and regulatory agencies to complete regional studies to assess the adequacy of infrastructure systems to support increased natural gas use for electric generation.	34857, 34865-34866
Block 3 Renewables	A case-by-case evaluation of the potential for renewables for each state should be included in the final guidelines.	34855, 34868-34870, 34921

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Table 1. Summary of Alliant Energy Recommendations on the EPA's Proposed Clean Power Plan		
Key Element	Recommendation	Fed. Reg. Reference
Block 3 Renewables	Incentivize states that have already met the renewable energy target by considering this 'added' renewable generation as an overall contribution to the regional renewable energy target available for compliance by other states.	34868-34870
Block 3 Renewables	Refine the alternative renewable methodology to consider robust reference resources rather than a single study of technical potential, define the average development rate based on all state levels, validate and document cost reduction targets of future market potential.	34868-34870
Block 3 Renewables	Consider renewable and/or purchased power agreements (PPAs) for zero carbon resources (i.e., wind or solar) toward the investing utility's home state goal-setting and compliance.	34868-34870, 34921-34922
Block 3 Renewables	Clarify that an interstate approach to compliance will be acceptable in state plans and compliance calculations for renewable resources and support a variety of existing tracking systems to ensure there is no double-counting of renewable energy credits (RECs).	34868-34870, 34913, 34921-34922
Block 3 Renewables	Block 3 alternative approaches offered in EPA's NODA should not be applied in the final guidelines because these need to be better justified, details clarified, and outcomes analyzed and issued for public comment.	64551-64552
Block 3 Nuclear	Eliminate the at-risk nuclear provision from the goal-setting calculation and instead allow states to take credit for a portion of their nuclear generation for compliance.	34870-34871
Block 3 Nuclear	Allow nuclear PPAs to be considered toward the investing utility's compliance determination to recognize customers' utility rates funding the energy resource.	34870-34871
Block 3 Nuclear	If the at-risk nuclear provision is retained in the final goal-setting calculation, then allow states' goals to be adjusted upon expiration of nuclear plant operating licenses.	34870-34871
Block 4 Energy Efficiency	Energy efficiency would be better addressed as part of the state plan processes and EPA should allow for a case-by-case evaluation in the final guidelines.	34855, 34858, 34871-34875
Block 4 Energy Efficiency	Conduct financial modeling of costs related to current energy efficiency programs and planning to assess the cost increases necessary to achieve the additional savings as recommended by EPA of 1.5% energy targets from 2019 – 2030.	34858, 34871-34875
Block 4 Energy Efficiency	With respect to energy-efficiency measure lifetime, assume a slower decline in savings over time and by adding a degree of persistence of savings after a measure "burn out."	34858, 34871-34875
Block 4 Energy Efficiency	Allow flexibility to modify the energy-efficiency programs proposed to comply with the Clean Power Plan over time to account for changes in the market and available technology.	34858, 34871-34875
Block 4 Energy Efficiency	Adopt an approach allowing three different nationally standardized Evaluation, Measurement & Verification (EM&V) procedures for well-established, moderately well-established, and less well-established energy efficiency technologies.	34858, 34871-34875, 34921
Block 4 Energy Efficiency	Allow the application of energy efficiency codes and standards as a compliance option for meeting goals and facilitate inclusion in state plans by developing associated EM&V guidance on an acceptable method for approval.	34858, 34871-34875
Block 4 Energy Efficiency	Allow credit for energy savings from natural gas conservation programs and the associated emissions reductions for both CO2 and methane to be included as a compliance option.	34858, 34871-34875

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Table 1. Summary of Alliant Energy Recommendations on the EPA's Proposed Clean Power Plan		
Key Element	Recommendation	Fed. Reg. Reference
Interaction of BSER Blocks	Consider the relative contribution of each Building Block individually and considering how building blocks will interact with or affect the achievability of each other and the overall impact of the four BSER building blocks on the electric system as a whole.	34839, 34888-34889, 34892-34896
Interaction of BSER Blocks	Support continued operation of affected units throughout their remaining useful life at a sufficient capacity factor and cost that will not result in their premature retirement.	34839, 34892, 34925-34926
Interaction of BSER Blocks	Allow state agencies to take into account the book life (or some other reasonable measure such as depreciation schedule) in demonstrating a request for a retirement off-ramp on an EGU-specific basis that could either revise the required emissions reductions or compliance deadline	34892, 64549, 34925-34926
Interaction of BSER Blocks	It would not be appropriate to treat Block 2 the same as Blocks 3 and 4. Therefore, EPA's proposed approach in the NODA to calculate state goals should not assume incremental renewables and energy efficiency replace fossil generation using either methodology (pro-rata or prioritization).	34892, 34896, 64552
BSER Applicability	As proposed, exempt simple cycle turbines and peaking EGUs in the final guidelines because these operate differently than base load and intermediate units to be covered by the Clean Power Plan	34854, 34954
BSER Applicability	Fix the drafting error in the proposed rule where the words [<i>and supplies</i>] appear to have been omitted in the regulatory text at §60.5795(b)(1) for applicability to affected steam generating units and IGCCs.	34854, 34954
BSER Baseline Correction	Use the demonstrated net capacity at which the units can actually operate for Block 2. Otherwise, correct the nameplate capacity for Riverside Energy Center, the proposed rule applied a nameplate capacity of 695.7 MW and the correct value is 674.9 MW.	34835, 34892-34896
BSER Analyses Corrections	Update the Integrated Planning Model (IPM), to remove incorrect assumptions regarding operating characteristics for Alliant Energy's electric generating units.	34835, 34892, 34896
Rule Flexibility	EPA's final rule should maintain either the emissions rate or mass-based compliance options.	34837, 34912
Rule Flexibility	The EPA's November 13, 2014 Technical Support Document (TSD), entitled "Translation of the Clean Power Plan Emission Rate-Based CO2 Goals to Mass-Based Equivalents" does not adequately consider demand growth and should clarify that states may adjust projections for demand growth based on state-specific circumstances.	34911-34912, 67406
Rule Flexibility	Alliant Energy recommends that the EPA should provide "presumptive" translations of rate-based goals to mass-based goals for each state, because it would reduce uncertainty surrounding the initial development of mass caps by states.	34837, 34911-34912
Rule Flexibility	States should be allowed to either adopt the presumptive translation, or propose an alternative mass-based goal, as part of the state plan process based on unique circumstances and local resource plans.	34837, 34911-34912
Rule Flexibility	EPA should provide a process that allows states to adjust their mass-based goals factoring changes that occur after the generation projection is originally made with appropriate supporting justification.	34837, 34911-34912, 34922
Rule Flexibility	EPA should include the flexibility for plans to use emissions averaging or trading to achieve CO2 performance goals.	34897-34898, 34927

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Docket ID: EPA-HQ-OAR-2013-0602

Table 1. Summary of Alliant Energy Recommendations on the EPA's Proposed Clean Power Plan		
Key Element	Recommendation	Fed. Reg. Reference
Rule Flexibility	EPA's final rule should maintain multi-state and regional options in addition to the state-only plan approach.	34833, 34952-34953
Rule Flexibility	Harmonize plan submittal deadlines to be no sooner than two years from EPA's issuance of the final guidelines for either the state-only or regional approach.	34851,34900, 34915, 34953
Rule Flexibility	Maintain at least the three-year averaging period for determination of compliance with the final goal.	34907, 34953
Rule Flexibility	Allow non-BSER measures for compliance (i.e., beyond the building blocks) including options both within the electric sector (for example, distributed and customer owned generation and transmission and distribution 'T&D' efficiency improvements) and outside the electric sector (for example offset projects - such as natural gas energy efficiency, biogas methane reduction, or tree planting programs).	34853, 34838, 34923-34924, 34926
Rule Flexibility	Allow affected utilities to update state plans and make changes with respect to the mix and amount of various compliance measures applied.	34897-34898, 34900, 34922
Rule Flexibility	Provide utilities with the option to include new NGCCs as a flexible compliance measure in state plans.	34875-34877, 34923-34924
Reliability	Provide states sufficient time to conduct reliability studies to support proper planning for system changes with plenty of lead time to plan, site, construct, and begin operations of supporting generation resources or infrastructure.	34835, 34839, 34900
Reliability	Allow state plans to include a safety valve that provides for generation operation when needed to ensure the reliability, safety, and security of the electrical system during abnormal operating conditions or emergency situations.	34835, 34839, 34900
Compliance Timeframe	EPA should recognize the need for energy markets to continue to solve for economic dispatch in order to minimize impacts by having the final guidelines provide sufficient time to make changes to energy market rules prior to the effective date of initial compliance.	34835, 34839, 34905-34906, 34915
Compliance Timeframe	EPA's NODA approaches to address near-term compliance concerns including (1) allowing states to credit early CO2 emissions reductions; and, (2) phasing in the increased dispatch of NGCC units for Block 2 based on needed expansion of natural gas pipeline infrastructure are not sufficient to fully address the timing issue.	34915, 64545-64546
Compliance Timeframe	EPA's Clean Power Plan should recognize the nature of electric utilities investments that have long-term energy resource planning cycles covering 10-15 year outlooks, broad system costs and long-lived asset lives.	34839, 34892, 34905-34906, 34915
Compliance Timeframe	Eliminate the interim goal (2020-2029) and allow States to establish a glide path to the 2030 final goal to allow adequate time to reliably achieve compliance. At a minimum, the EPA's Clean Power Plan should not require reductions any sooner than five years from EPA's final approval of a state plan (or regional plan).	34839, 34892, 34905-34906, 34915

IV. Clean Power Plan Proposal Background

In June 2013, President Obama announced a Climate Action Plan that more broadly, reinforced the Administration's previously stated goal of reducing GHG emissions "in the range of 17% below 2005 levels by 2020". As part of this broader plan, a presidential memorandum was issued directing the EPA to work expeditiously to complete greenhouse standards for the electric power sector.

The agency is utilizing section 111(d) of the Clean Air Act (CAA) to issue emission guidelines addressing greenhouse gases (GHG) from existing power plants. The presidential memorandum directs EPA to issue proposed GHG guidelines to reduce CO₂ emissions from existing power plants by no later than June 1, 2014, and issue final guidelines, as appropriate, by no later than June 1, 2015. In addition, the presidential memorandum directs EPA to include a requirement that states submit to EPA the plans required under section 111(d) to implement the federal guidelines by no later than June 30, 2016.

On June 18, 2014, the EPA published notice of proposed rulemaking for 40 CFR Part 60 - Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units [Federal Register, Vol. 79, No. 117 at 34830]. This proposed rulemaking is more commonly referred to as EPA's "Clean Power Plan". On September 18, 2014, the EPA extended the public comment period for this proposed rulemaking from October 16 to December 1, 2014. On October 30, 2014, the EPA issued a supplemental Notice of Data Availability (NODA) [Federal Register, Vol. 79, No. 210 at 64543]. On November 13, 2014, the EPA published notice of a new Technical Support Document (TSD) entitled "Translation of the Clean Power Plan Emission Rate-Based CO₂ Goals to Mass-Based Equivalents" [Federal Register, Vol. 79, No. 219 at 67406].

In the current rulemaking, the EPA is proposing state-specific rate-based goals for CO₂ emissions in pounds (lbs) per net megawatt-hour (MWh) to reduce GHGs from existing fossil-fueled power plants. According to the EPA, the final state goals, on a national average, will achieve by 2030 an approximate 30% reduction in power sector CO₂ emissions from 2005 levels.

Specifically, the EPA proposed a two-phased program, with both interim (2020-2029) and final (2030 and beyond) emission rate goals. The EPA used 2012 as the baseline when calculating the state-specific emission rate goals, based on the average emissions rates for all affected fossil fuel-based EGUs in the state. The applicable goals for states where Alliant Energy currently operates are summarized in Table 2 below.

Table 2: Proposed State-specific CO2 Goals where Alliant Energy Operates			
State	Interim Goal: 2020-2029 (lb/MWh Net)	Final Goal: 2030 and thereafter (lb/MWh Net)	% Reduction from 2012 Baseline
Iowa	1,341	1,301	16%
Minnesota	911	873	41%
Wisconsin	1,281	1,203	34%

To develop goals, the EPA proposed the Best System of Emission Reduction (BSER). The BSER goals were determined based on assumptions of future reductions in the CO2 rate achieved by applying low- or zero-emission energy resources. The four options, or “building blocks,” used to propose BSER goals included heat rate improvements at existing coal-fired EGUs, increasing dispatch of existing natural gas-fired combined-cycle EGUs, maintaining or expanding zero- or low-CO2 energy resources such as renewables and nuclear, and reducing customer demand for electricity through energy efficiency programs.

V. Alliant Energy Operations Regulated by the Clean Power Plan

The EPA is proposing that, for the emission guidelines, an affected EGU is any fossil fuel-fired EGU that was in operation or had commenced construction as of January 8, 2014, and is therefore an “existing source” for purposes of CAA Section 111(d). The EPA proposes to define “affected EGU” as a steam generating unit, integrated gasification combined cycle (“IGCC”), or stationary combustion turbines that provides base load power with certain exceptions for simple cycle and peaking EGUs. More specifically, the EPA’s proposal includes as affected EGUs those units that have a base load rating greater than 73 MW (250 MMBtu/hr) heat input of fossil fuel (either alone or in combination with any other fuel) and that was constructed for the purpose of supplying, and supplies, one-third or more of its potential electric output and more than 219,000 MWh net-electric output to a utility distribution system on an annual basis.

Alliant Energy currently maintains a total electrical generation capacity of 6,640 MW (nameplate). There are 26 EGUs and 4,496 MW that would be directly regulated under the EPA’s Clean Power Plan. While not directly regulated by the EPA’s Clean Power Plan, the proposed rule could potentially impact wind resources owned and operated by Alliant Energy located in Iowa, Minnesota and Wisconsin. These EGUs are summarized in Appendix A and B respectively for IPL and WPL. In addition, Alliant Energy’s non-regulated businesses own Sheboygan Falls, a 347 MW, simple cycle, natural gas-fired EGU near Sheboygan Falls, Wisconsin and the 99 MW Franklin County wind project in Franklin County, Iowa. Alliant Energy also maintains PPAs for supplemental clean energy resources,

including wind and nuclear power, as part of its balanced portfolio approach to meeting customer electricity supply that may also be affected by this proposed rule.

VI. Representative Baseline and Credit for Early Action

Alternative to 2012 single year

The EPA's goal-setting mechanism and use of a 2012 baseline for the purpose of setting state goals generally fails to recognize emission-reducing actions taken by states and utilities prior to 2012. An earlier alternate baseline period would allow some credit for early emission reductions. In addition, a methodology that relies on the use of a single year could also skew the state's goal, for example, if one utility had an unusually large number of outages during the single year. Furthermore, a multi-year baseline period reduces the impact of abnormal conditions during any one particular year, such as low natural gas prices. In fact, 2012 was not a representative year as it reflected the lowest natural gas prices in the 10 year period ending in 2013 and this consequently contributed to the greatest percentage of electric generation from natural gas. Appendix C includes supporting data from the U.S. Energy Information Administration (EIA) on natural gas trends from 2003 through 2013 for the states in Alliant Energy's service territory.

For example in Iowa, the impact of a multi-year baseline is approximately 5% revising the final 2030 goal from 1,301 lbs/MWh (based on 2012) to 1,360 lbs/MWh (based on 2010-2012). Similarly, for Wisconsin, the impact of the multi-year baseline is approximately 3% revising the final 2030 goal from 1,203 lbs/MWh (based on 2012) to 1,237 lbs/MWh (based on 2010-2012). Therefore, the impact of this underestimation is that it makes these final state goals more stringent.

EPA recognizes this issue in the NODA, which proposes using a different year or an average of multiple years – in particular from 2010 to 2012 for the goal computation. Therefore, Alliant Energy concurs with the NODA that an alternative multi-year baseline would be appropriate. At a minimum, our company recommends that a three year period such as 2010 - 2012, or earlier, should be developed. This would be consistent with the final goal, which is measured on a three-year rolling average basis (i.e., 2030 - 2032, 2031 - 2033, 2032 - 2034, etc.).

Credit for pre-baseline reductions

President Obama's broader climate initiatives have been established relative to a 2005 benchmark and the EPA has referenced this 2005 benchmark in achieving a 30% reduction from the Clean Power Plan. Consistent with the 2005 benchmark, it would be reasonable

for EPA to provide credit for utility actions that have reduced CO₂ since 2005 that are not sufficiently factored into the 2012 baseline. Tables 3 and 4 provide a summary of actions taken by Alliant Energy to reduce CO₂ emissions pre-2012 through retirement and fuel-switching of its existing generation fleet. Our company requests that EPA's final guidelines provide the ability to credit all of these actions in state plans.

Table 3 – IPL's Actions to Reduce CO₂ Emissions from 2005 to 2012			
Generating Station	Action	Approximate Nameplate Capacity (MW)	Approximate* Annual CO₂ Reduction (tons)
Dubuque	Unit 2 retired in 2010; Fuel switched from coal to natural gas in 2011	15 (retired) 66 (fuel-switch)	318,863
Fox Lake	Retirement of Unit 2 in 2010	12	238
ML Kapp	Retirement of Unit 1 in 2010	19	133
Lansing	Retirement of Units 1, 2, and 3 from 2006 to 2013 (Note: all operation ceased prior to 2012)	68	184,299
Sixth Street	Retired in 2010	85	581,540
Sutherland	Retirement of Unit 2 in 2010; Fuel switched Units 1 and 3 from coal to natural gas in 2011	38 (retired) 119 (fuel-switch)	1,015,364
Total		422	2,100,437
*Note: Total estimated annual CO ₂ reductions are based on measurements from certified continuous emissions monitoring systems. Emissions reductions from retired units were taken from 2005 data. Emissions from the year in which a fuel switch was made were excluded from the pre- and post-switch averages. In addition, IPL has retired smaller combustion turbine units and peaking engines that are not shown here due to low emissions from intermittent operations.			

Table 4 – WPL's Actions to Reduce CO₂ Emissions from 2005 to 2012			
Generating Station	Action	Approximate Nameplate Capacity (MW)	Approximate* Annual CO₂ Reduction (tons)
Blackhawk	Units 3 and 4 ceased operations in 2009	54	7,904
Rock River	Units 1 and 2 ceased operations in 2009	150	127,420
Total		204	135,323
*Note: Total estimated annual CO ₂ reductions are based on measurements from certified continuous emissions monitoring systems. Emissions reductions from retired units were taken from 2005 data.			

Credit for post-baseline/pre-compliance reductions

Alliant Energy requests that EPA provide additional clarification in the final guidelines regarding how post-2012, pre-2020 CO₂ emission reduction related activities including, but not limited to, unit retirements, fuel switching, new gas-fired generation, heat rate improvement projects, added renewable generation and increased energy efficiency, will

be credited for compliance towards meeting EPA's established state goals. Alliant Energy believes it is reasonable for all of these post-baseline/pre-compliance CO₂ emission reduction related actions to be given credit with appropriate verification and confirmation that there is no double-counting. EPA should recognize all actions that reduce carbon emissions so as to incent earlier emission-reduction actions and to facilitate more rapid achievement of the Clean Power Plan goals. In particular, Tables 5 and 6 below summarize future actions to be taken by IPL and WPL with respect to retirements and fuel-switching for fossil-fueled EGUs in its fleet to meet various environmental requirements.

Table 5 – IPL Future Retirements or Fuel-Switch Post-2012		
Generating Station	Action	Approximate Nameplate Capacity (MW)
Dubuque	Units 3 and 4 to expected to retire by December 31, 2016	66
Sutherland	Units 1 and 3 to expected to retire by December 31, 2017	119
M.L. Kapp	Switch Unit 2 from coal to natural gas as primary fuel in 2015	218
Fox Lake	Units 1 and 3 expected to retire by December 31, 2017	93
Total generating capacity		496

Table 6 – WPL Future Retirements or Fuel-Switch Post-2012		
Generating Station	Action	Approximate Nameplate Capacity (MW)
Nelson Dewey	Units 1 and 2 to retire by December 31, 2015	200
Edgewater	Unit 3 to retire by December 31, 2015	60
Edgewater	Unit 4* to retire, refuel or repower by December 31, 2018	225
Total generating capacity		485
*Note: represents WPL's 68.2% ownership interest in Edgewater Unit 4		

Alliant Energy also has plans to expand new natural gas combined cycle (NGCC) units in our generation fleet. IPL is currently constructing Marshalltown Generating Station in Marshalltown, Iowa, an approximate 650 MW NGCC. Construction began in 2014 and is expected to be completed in 2017. WPL has proposed expansion of Riverside Energy Center in Beloit, Wisconsin and our company expects to file for regulatory approval to construct the approximate 650-megawatt facility with the PSCW in early 2015. Subject to regulatory approvals and receipt of permits, construction is expected to begin in 2016 and be completed by 2019.

In addition, states that add renewable facilities or energy efficiency programs prior to 2020 should be allowed to bank credits representing the renewable energy generated or energy savings and use these credits for compliance purposes beginning in 2020 because these

result in carbon reductions. Likewise, credits for renewable generation and energy efficiency programs that exceed what is required to meet a state's goal during a compliance period should be allowed to be banked for use in a subsequent compliance period because these result in carbon reductions. For example, excess credits from the 2020-29 compliance period could be banked for use in the 2030-32 compliance period.

VII. Best System of Emission Reduction Building Blocks

In order for Alliant Energy to effectively reduce CO₂ emissions while maintaining reliable and affordable power for our customers, it is imperative for the EPA's Clean Power Plan to modify the BSER building blocks to be established right. EPA must resolve assumptions underlying, and interaction among, the BSER building blocks in setting state goals or at least allow for flexibility in state plans to provide a case-by-case assessment of EPA's building blocks. Recommendations regarding revisions for the EPA's final guidelines necessary to provide for state goals that are technically sound and achievable for each block are provided below.

Building Block 1: Heat Rate Improvement

Key aspects to address for EPA's Building Block 1 Approach

The EPA's proposed Clean Power Plan applies assumptions related to heat rate improvements applied to each state's coal fleet as part of the goal-setting computation. As proposed, the goals were based on an assumption of 6% and EPA's alternative assumption would be 4%.

More specifically, the EPA's proposed 6% heat rate improvement value is comprised of two elements: 1) a 4% reduction attributable to operations and management (O&M) "best practices" based on a statistical analyses; and 2) a 2% reduction due to higher cost hardware "equipment upgrades" that were identified in a 2009 Sargent and Lundy report about potential efficiency improvements at coal-based EGUs. EPA's proposed alternative derived state goals using only the 4% "best practices" component of EPA's analysis.

EPA's uniform assumption that these levels of heat rate improvement are feasible and achievable nationwide at all affected coal units is not technically sound. Utility companies, including Alliant Energy, already complete many of the suggested heat rate improvement work practices and equipment replacement projects suggested by EPA. Utilities are incented to complete these projects in order to provide for affordable, reliable power and the benefit of reducing the CO₂ emission rate. Efficient operation of coal units is necessary

to reduce fuel costs and preventative maintenance is important to avoid unforeseen shutdown due to equipment malfunction or failures.

EPA's broad application of the heat rate improvement assumption fails to consider planned retirements for coal units prior to 2020 and the installation of air pollution control systems for compliance with the Mercury & Air Toxics Standards (MATS) rule by April 2015. Furthermore, EPA's assumed levels of sustainable heat rate improvement fail to consider critical issues related to unit design, load, cycling, and degradation. Finally, EPA's use of gross heat rate data for estimating heat rate improvement CO₂ reductions for Building Block 1 is inconsistent with the use of the net emission accounting used in the state goals computation. The use of gross heat rate data leads to inconsistencies and possible overestimation of the heat rate improvement-related CO₂ reduction potential.

The NODA also requests comment on whether EPA should phase in Block 1 heat rate improvements for coal-fired units. For reasons stated above, this approach does not address the issue that heat rate improvements are best addressed on a unit-by-unit basis, thereby making any assumed approach by EPA to phase-in these reductions arbitrary and generic. Rather, to appropriately phase-in heat rate improvement projects EPA should allow for state plans to develop this schedule by conducting case-specific analyses. Appendix D includes supporting information related to these technical issues including work practices conducted by Alliant Energy and summaries describing the potential impacts of load, cycling and degradation.

Building Block 1 Recommendations

A case-by-case evaluation that considers both the potential for and cost-effectiveness of heat rate improvement projects at individual EGUs would be a more effective approach than application of a uniform assumption. EPA's final rule should allow states to provide this assessment for the final goal computation based on input from individual affected utility companies. This assessment should at a minimum consider the following:

- Allow states to replace the assumed 6% heat rate improvement in the goal-setting formula with a case-by-case evaluation of the potential for, and cost-effectiveness of, further heat rate improvement projects at individual EGUs. The case-by-case evaluation of heat rate should calculate efficiency improvements on a net basis (i.e., lbs CO₂/MWh net).
- Provide credit for heat rate improvement projects undertaken by utilities between the baseline year and the initial date of compliance. For example, Alliant Energy recently completed heat rate improvement projects at IPL's Ottumwa Generating

Station in November 2014. WPL's Columbia Energy Center has heat rate improvement projects scheduled for completion by the end of 2017. These projects are expected to improve efficiency on average by approximately 3 – 5% at these electric generating stations. For the Ottumwa Generating Station project description see Iowa Utilities Board (IUB) Docket No. EPB-2014-0150, filed by IPL on April 1, 2014 available at <https://efs.iowa.gov/efs/>. For the Columbia Energy Center project description see Public Service Commission of Wisconsin (PSCW) Docket No. 05-CE-141, application filed on July 31, 2013 available at http://psc.wi.gov/apps40/ERF_public/Default.aspx.

- Factor the impact of auxiliary power required to operate air emission control systems on net output. EPA's current assumption applies heat rate improvements to the gross output CO₂ emissions rate of coal-units, which is an incorrect assumption for power plants where controls such as scrubbers have been constructed since 2012. For example, Alliant Energy has or will have installed dry scrubbers at the following power plants: Columbia Energy Center, Edgewater Generating Station, Ottumwa Generating Station, and Lansing Generating Station.
- No improvements should be assumed for units that have firm commitments to retire or fuel-switch to natural gas before 2020. Specifically, Table 7 provides a summary of Alliant Energy's current announcements that should be excluded from the EPA's estimated Block 1 heat rate improvements.

Table 7: Alliant Energy Units to be Excluded from EPA's Block 1 Heat Rate Improvement		
Utility	Facility	Expected Action
IPL	ML Kapp Generating Station	Fuel-switch to gas as primary fuel in 2015
WPL	Nelson Dewey Generating Station	Units 1 and 2 to retire by December 31, 2015
WPL	Edgewater Generating Station	Unit 3 to retire by December 31, 2015
WPL	Edgewater Generating Station	Unit 4 to retire, refuel or repower by December 31, 2018

- As discussed below, EPA's final rule needs to consider the interaction of the building blocks as an integrated system and the degradation of potential heat rate improvements for coal-fired units operating at lower capacities.

Building Block 2: Increased Natural Gas Utilization

Key aspects to address for EPA's Building Block 2 Approach

With respect Building Block 2, the EPA proposed Clean Power Plan assumes that a reduction in mass emissions from higher-emitting coal-based EGUs can be achieved from shifting generation from these units to lower-emitting existing NGCC units. In order to estimate the magnitude of emissions reductions that could be generated through increased re-dispatch of NGCC units, EPA assumed that each state's existing NGCC fleet could achieve a utilization rate of 70%. EPA also requested comment on an alternate utilization rate of 65%.

In addition, the EPA's NODA suggests alternative approaches for Block 2 in order to provide more equity in the state goal-setting process including establishing a minimum level of NGCC re-dispatch or applying it on a regional basis. According to the NODA, the EPA could broadly set a minimum level of generation shift from higher-emitting (i.e. coal) to lower-emitting (i.e., gas) sources that could be addressed by either existing or new NGCC or co-firing gas in existing coal units. Alternatively, the EPA could factor in regional availability of NGCC generation, rather than only in-state availability, in setting Block 2 targets. EPA's NODA also suggests the possibility of phasing in the increased utilization rate of existing NGCC redispatch, similar to the ramping applied for Blocks 3 and 4.

While NGCC operation at or above 70% may be possible for some existing NGCC units, EPA's assumption that this is feasible at all existing NGCC units nationwide is too broad. In general, EPA's proposed rulemaking insufficiently evaluated the infrastructure and system-wide implications of increased NGCC utilization, such as the ability to deliver the increased quantities of natural gas to specific NGCC units, the ability of steam EGUs to reduce generation while remaining ready to supply electricity when needed in peak demand hours, and the ability of the electric transmission system to accommodate the changed geographic pattern of generation. As discussed below, EPA needs to fully consider the interaction of the building blocks as an integrated system and resultant impacts of Block 2 on availability, reliability and affordability of power.

EPA conducted limited analysis of the ability of the existing natural gas pipeline system to support increased utilization of NGCCs. EPA's Regulatory Impact Analysis projects a four to eight percent increase in pipeline capacity by 2020, suggesting existing infrastructure is not adequate. This analysis further fails to consider increased natural gas demand for local distribution companies for residential use and consumption to support the commercial and industrial sectors. While it is feasible for additional infrastructure to be built, this will require appropriate time that is not sufficiently provided for in EPA's proposal especially

with respect to the interim goal that begins in 2020, further supporting the need for additional time to facilitate planning for an orderly transition.

EPA used nameplate capacity throughout its analysis to calculate achievable utilization rates. Nameplate capacity is the nominal maximum output of a generator, assuming a particular set of ideal operating conditions, including altitude, humidity and other factors that cannot be controlled by unit operators. Because of a variety of technical and ambient factors, power plants typically do not achieve their technical maximum capacity. Nameplate capacity is not demonstrated capacity, which represents the maximum output that can be delivered to the grid as measured by a unit's historic performance. EPA's analysis should focus on demonstrated capacity, instead of nameplate capacity, to avoid overestimating the potential for re-dispatch. MISO is responsible for the non-discriminatory operation of the bulk power transmission system and wholesale energy markets in Alliant Energy's utility service territory. In MISO, demonstrated capacity would be defined as unforced capacity, which is a combination of an annual tested capacity value and historical forced outage rate.

Alliant Energy has two NGCC plants in its current fleet that the EPA considered as part of the goal-setting computation—namely, IPL's Emery Generating Station and WPL's Riverside Generating Station. Historical annual capacity factors for each of these plants have never approached the EPA's assumed 70%, with a maximum of about 32% since the 2004 commencement of operations at both sites. This reflects the utilization of these NGCCs as a resource to provide intermediate power and load balancing, such as for integration of renewable resources that are intermittent in nature. In fact, the EPA's Clean Power Plan survey of data for over 1,800 NGCC units found that the national NGCC fleet had an average capacity factor in the 44% to 46% range for 2012.

As a further illustration of the interplay between the building blocks, Emery Generating Station's capacity factor is significantly influenced by the strong wind regime in Iowa. Currently, IPL has seen low combined cycle capacity factors due to the concentration of wind energy nearby. This is an example of an efficient NGCC that cannot run more because of transmission constraints. Existing transmission in Emery's area will not disperse all of the wind around the Emery Generating Station, so it cannot run as much as it otherwise could. While transmission projects are currently planned that are intended to remedy the situation, the continued integration of renewables could lead to similar situations where the transmission system may not be able to reliably and cost-effectively support high capacity factor gas and high capacity factor renewables at the same time.

Moreover, uncertainty exists regarding the possible implications of EPA's proposal more broadly to operate these NGCC units as a base load resource, rather than to support

intermediate dispatch and how loss of this flexibility could affect other aspects of system operations. For instance, in some cases, NGCC dispatch of 70% may not be achievable due to environmental permit limitations, physical site limitations, or equipment design constraints.

Furthermore, a significant impact on pipeline infrastructure could occur if the proposed Clean Power Plan results in the increased need for simple cycle combustion turbines to support flexible operations that can no longer be supported by NGCCs. If simple cycle combustion turbines are relied on more significantly because of the EPA's proposal, then additional pipeline infrastructure may be necessary. This is especially true if the need grows in the winter and there is a need for increased firm pipeline capacity.

It is not clear that the EPA analysis has taken note of these types of concerns about the availability of storage and associated interstate delivery capacity. In contrast, MISO has begun studying the regional issues of natural gas and electric system interdependency and may be in a better position to assess potential constraints and impacts to reliability. The ability of the nation's natural gas infrastructure (pipeline, storage, markets) to deliver dramatically increased amounts of natural gas where and when it is needed by electric generators is also an issue of serious concern for electric regulators including the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC). In issuing the final rule, the EPA needs to demonstrate that full consideration was provided to include additional stakeholder perspectives and concerns related to operation of the bulk power system with increased reliance on natural gas.

Building Block 2 Recommendations

It is unclear that NGCC redispatch could be fully implemented by 2020 in all cases, particularly if air or water permit limitations, other operational amendments, or upgrades to natural gas pipelines and electric transmission facilities are required to accommodate increased NGCC operation. The EPA should allow states to determine what level of redispatch is feasible and the reasonable schedule for implementing NGCC redispatch. Alternately, if the interim goals remain in EPA's final guidelines, then at a minimum Alliant Energy supports the suggestion in the NODA of phasing Building Block 2 in gradually over time by assuming a ramp up period.

Rather than use the nameplate rating of NGCCs in EPA's calculation of the energy that would be produced by the operation of NGCCs at a capacity factor of 70%, the EPA should use the demonstrated net capacity at which the units can actually operate. For instance, the same EIA-860 database that provides the nameplate capacity used by EPA also provides summer and winter net capacity ratings for the affected NGCC units. An average of

the summer and winter net capacity ratings could provide a more reasonable and representative estimate of average annual net capacity of the NGCCs. Another alternative metric to net summer and winter capacity is the Unforced Capacity (UCAP) factor used by the MISO and other Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs). The UCAP represents the amount of Installed Capacity (ICAP) that is actually available at any given time. The UCAP factor incorporates the historical impact of outages and derates on a unit's capacity, and thus better accounts for real-world actual operating conditions.

The other Block 2 alternative approaches offered in EPA's NODA should not be applied in the final guidelines because these need to be better justified, details clarified, and outcomes analyzed and issued for public comment. In particular, requiring a minimum level of natural gas dispatch may not be technically supportable as the BSER. The regional approach may not qualify as the BSER and also poses significant complexity with respect to how regions would be determined as well as the allocation of shares to states within each region.

EPA's final guidelines must consider the role that FERC, NERC, RTOs/ISOs have in assessing technical feasibility and reliability implications of Building Block 2. In addition, due to the interconnected nature of the electric and natural gas systems, EPA should allow states sufficient time to complete regional studies to assess the adequacy of infrastructure systems to support increased natural gas use for electric generation.

Building Block 3: Increased Renewable Resources

Key aspects to address for EPA's Building Block 3 Renewables Approach

EPA's proposed Clean Power Plan includes assumptions related to increased renewables development as part of the goal-setting computation assumptions for each state. EPA's primary approach is based on an average of individual state Renewable Energy Standard (RES) requirements on a regional basis that is used to set a target for 2029 equal to this average. EPA's method grows the renewable generation for each state using a regional annual growth rate that is applied to each states' 2012 baseline level beginning in 2017 that is increased every year through 2029. EPA also proposed an alternate approach that provides a methodology based on state renewable potential instead. In addition, the NODA further outlines an additional approach that establishes regional targets based on the renewable potential across a multi-state region (versus state-only potential as per the proposals alternative approach) and then apportioning responsibility back to individual state goal-setting in the region based on some metric, such as retail sales of electricity.

EPA's regional renewables approach should be re-evaluated to provide greater equity for early actions by states and by individual utility companies to deploy renewable resources. In addition, there are technical aspects to EPA's calculations that require revision to be consistent with individual state RES programs, such as, including the ability to apply out-of-state resources (owned or purchased) as well as accounting for which renewable resources are eligible.

EPA's proposal determined goals based on the geographic location of generation resources within each state irrespective of ownership or use. EPA's renewable approach must recognize that individual state RES programs allow the use of out-of-state state renewable energy credits (RECs) for compliance. These mechanisms enable regulated utilities to meet RES mandates cost-effectively by building or purchasing renewable resources in the most optimal location. As a general matter, the off-taker of power should have the final say on where the credit should reside for compliance accounting purposes.

EPA's alternative renewable approach relies on incomplete and unsubstantiated assumptions about the technical feasibility, rate of deployment, and future costs to deploy additional renewable generation technologies. EPA utilizes the average deployment rate of the top third (16) of states in designating a benchmark RE technical development rate for each technology type. EPA's decision and rationale to utilize only the top third of the states for determining the benchmark renewable (RE) development rate is not sufficiently explained and fully justified in technical support documentation. In addition, the EPA arbitrarily selects \$30/MWh as a cost reduction target for the Integrated Planning Model (IPM) projection of future market potential. Finally, the data that EPA used for "potential RE" that could be realized in a given state is obtained utilizing just one study's results, performed by the National Renewable Energy Laboratory (NREL).

Both approaches fail to recognize the time and resources necessary to deploy additional renewable resources as well as potential constraints that could limit siting in certain locations. These include consideration of environmental-related issues that affect new site development for renewables. Therefore, constructing significant additional wind resources prior to 2020 may not be feasible and could come at significantly higher cost premiums.

Appendix E provides a typical schedule for wind project development based on Alliant Energy's internal planning, which generally anticipates up to six to eight years from start to completion.

Building Block 3 Recommendations

The EPA's proposed renewables approach presents many challenges that will be difficult to resolve in the final rule. EPA's methodology fails to sufficiently recognize early action for states that have already supported renewables independently or through RES programs. Complicated issues, such as accounting for out-of-state renewables, would be better addressed as part of the state plan processes. A case-by-case evaluation of the potential for renewables for each state should be included in the final guidelines. EPA should allow states to provide input to this assessment for the final goal computation, based on data and specific circumstances applicable to individual affected utility companies.

If EPA's final guidelines continue to apply regional targets, one alternative approach would be to incentivize states that have already met the renewable energy target to continue promoting renewable development and consider this 'added' renewable generation as an overall contribution to the regional renewable energy target. This approach better aligns with the current market structures for RES that supports economic-based renewables development.

If EPA pursues the application of the alternative renewable methodology, Alliant Energy recommends further refinement by using a more robust selection of reference resources rather than just using the single NREL study of technical potential, making it more representative by applying to all states rather than just the top one one-third of (16) states in defining the average development rate; and providing a more complete and documented review of the cost reduction target modeling of future market potential.

Block 3 alternative approaches offered in EPA's NODA should not be applied in the final guidelines because these need to be better justified, details clarified, and outcomes analyzed and issued for public comment. In particular, while the regional approach provides flexibility to recognize that renewables are best developed in optimal locations that may in fact be out-of-state and existing interstate REC markets, this option also poses significant complexity. Basing a renewable target based on technical potential does not factor in potential hurdles encountered in siting and development of greenfield sites, such as for wind. It also does not consider or address the potential contentious issue of how the renewable requirements of the region ultimately are apportioned back to each state for goal-setting. These issues should be fully addressed first to ascertain the viability of this approach.

Most importantly, customers should receive the benefit of the utility investments they paid for, even if the investment is in another state. Therefore, renewable and/or PPAs for zero carbon resources (i.e., wind or solar) should be considered toward the investing utility's

home state goal-setting and compliance. This approach supports efficient compliance and recognizes that customers' utility rates funded these resources. For example, Alliant Energy's subsidiary WPL has wind PPAs of 140 MWs that are located outside of the state of Wisconsin.

In addition, Alliant Energy's subsidiary WPL owns and operates the Bent Tree Wind Farm located in Freeborn County, Minnesota. The Bent Tree Wind Farm (201 MW nameplate) commenced operation in 2010 and was built to comply with the Wisconsin RES. The EPA proposed Clean Power Plan considers the renewable energy produced by Bent Tree as part of the Minnesota state goal calculation. The cost of Bent Tree is solely borne by WPL's customers in Wisconsin. Therefore, Alliant Energy believes EPA's final guidelines should instead credit this facility and out-of-state PPAs for establishing both Wisconsin's goal and compliance determination. While the EPA has suggested that an interstate approach to compliance will be acceptable in state plans and compliance calculations for renewable resources, it is important that these details be clarified to provide structured flexibility and eliminate uncertainty for affected EGUs. EPA should also support a variety of existing tracking systems to support demonstration of compliance and to ensure that there is no double-counting of renewable energy credits.

Building Block 3: "At-Risk" Nuclear

Key aspects to address for EPA's Building Block 3 Nuclear Approach

EPA's proposed guidelines included an "at risk" approach that applies approximately 6% of existing nuclear at a 90% capacity factor in the goal-setting computation for relevant states.

As a practical matter, the EPA's approach is arbitrary and the proposed "at-risk" nuclear provision results in more stringent goals for states with existing nuclear capacity than for states without. In addition, EPA's approach fails to recognize that even if a nuclear unit does not shutdown prematurely, it will still be required to shut down upon expiration of its operating license creating a need for replacement generation.

Building Block 3 Recommendations

The EPA should eliminate the at-risk nuclear provision from the goal-setting calculation. Rather than penalizing states in which nuclear plants shut down, the rule should provide an incentive for nuclear units to continue to operate. Excluding existing nuclear from the goal-setting calculation, but allowing states to take credit for a portion of their nuclear generation for compliance purposes, would provide such an incentive. In addition, if the at-

risk nuclear provision is retained in the final goal-setting calculation, the EPA should allow states' goals to be adjusted upon expiration of nuclear plant operating licenses.

Furthermore, EPA should include allowing nuclear PPAs to be considered toward the investing utility's compliance determination. This approach supports efficient compliance and recognizes that customers' utility rates funded these resources. Specifically, Alliant Energy's subsidiary IPL currently has a nuclear PPA through February 2025 for energy from the DAEC. Allowing IPL to include the DAEC PPA as a compliance measure would incent possible continued operation of DAEC and future extension of this PPA contract.

Building Block #4: End-use energy efficiency

Key aspects to address for EPA's Building Block 4 Approach

For Building Block 4, demand-side energy efficiency, the EPA set a best practices level of performance at 1.5% incremental savings as a percentage of retail sales. Each state's 2012 level of performance is applied beginning with 2017 and projected to increase 0.2% annually until the state meets 1.5%. The state is to then maintain the 1.5% level through 2030. If the state meets or exceeds the 1.5% incremental savings in 2012, it will maintain that 1.5% through 2030 and will not have a 0.2% increase applied. The EPA assumes a measure life of 10 years for energy efficiency.

Utilities that have had energy-efficiency programs ongoing for years, or even decades, such as Alliant Energy, would experience increased costs for incremental energy efficiency savings because energy efficiency is prevalent in the states Alliant Energy serves and the potential for additional savings through energy efficiency is reduced. Specifically, Alliant Energy continues to participate in robust energy efficiency programs through the Focus on Energy (FOE) program in Wisconsin and the Iowa Energy Efficiency Plan (EEP). Alliant Energy has reservations regarding EPA's estimate that a 0.5% increase in energy efficiency will only require a 20% increase in energy efficiency spending, which is further documented in the following reports.

- According to a recent American Council for an Energy-Efficient Economy (ACEEE) report, *"Cracking the Teapot: Technical, Economic, and Achievable Energy Efficiency Potential Studies"* that evaluated both technical and economic potential to assess maximum achievable electric savings, ACEEE references Iowa's Assessment of Potential conducted by The Cadmus Group. ACEEE notes the Cadmus estimate that Iowa would require a more than two-fold increase over 2010 in energy efficiency spending to achieve projected savings (Reference: *Cracking the TEAPOT: Technical,*

Economic, and Achievable Energy Efficiency Studies. Max Neubauer, August 2014
Report U1407, pages 63-66 and 72-73;
<http://www.aceee.org/research-report/u1407>).

- In the report, “*Energy Efficiency and Customer-Sited Renewable Resource Potential in Wisconsin*”, the Energy Center of Wisconsin (ECW) estimates that annual energy efficiency program investments of up to \$350 million would be necessary to achieve projected savings (Reference: *Energy Efficiency and Customer-Sited Renewable Resource Potential in Wisconsin. Energy Center of Wisconsin - August 2009 Final Report, page EE-3*; <http://www.ecw.org/publications/energy-efficiency-and-customer-sited-renewable-resource-potential-wisconsin-years-2012>).

EPA’s proposed guideline assumption of 1.5% annual increase in incremental savings is also ambitious. There are uncertainties that suggest the proposed annual increases in incremental energy efficiency savings are not achievable as proposed per the Clean Power Plan. For example one area where the EPA may have overestimated the potential future energy efficiency savings are from the changes in lighting brought on by the 2007 Energy Independence and Security Act (EISA). Eventually the baseline for energy savings will change since CFLs and LEDs will be replacing CFLs, not the less-efficient incandescent bulbs. Therefore, this program will not likely be able to provide the same level of savings as it has in the past (at least not without other changes in products, technology, or cost). For states with long-term implementation of Energy Efficiency programs, such as the states that Alliant Energy serves, the easier-to-implement and more cost-effective opportunities, as well as many lower incremental cost technologies and programs, have been implemented and those savings have been achieved. Additionally, achieving sustained energy efficiency savings at this proposed level would require substantial investments in programs and result in significant cost implications for the residents and businesses in the state.

EPA’s assumptions on energy-efficiency measure lifetime need further refinement. For example, EPA has made the assumption in the *Technical Support Document: GHG Abatement Measures* when determining Building Block 4 goals, that energy savings from energy-efficiency measures start to decline immediately after installing and continue to decline until reaching the end of their useful life. Alliant Energy disagrees with this assumption. Many energy-efficiency measures, such as lighting, provide stable energy savings over their lifetime. Further, many measures are replaced by equal or higher efficiency measures when needed or after “burn out.”

EPA's proposal does not take a position on the issue of compliance and enforcement of the regulation at the state level. Alliant Energy proposes that states are better positioned to adopt and enforce measures under a portfolio approach. This would better allow for the implementation of the range of BSER and non-BSER compliance methods, such as energy-efficiency programs and building codes and standards, expected under this approach. EPA states there are several methods for conducting Evaluation, Measurement & Verification (EM&V), but it does not indicate preference, other than it prefers a standardized process across the states for tracking purposes and benchmarking.

EPA's proposal needs to provide clarification and ability to incorporate codes and standards. EPA attributes its lack of explicit consideration of codes and standards in 111(d) primarily to its view that EM&V procedures and protocols for assessing impacts of codes and standards are only moderately well-established, compared to procedures for evaluating more conventional energy-efficiency programs. EPA specifically invites comments on how the incremental annual savings rate could be increased by accounting for building energy codes and state appliance standards. Our company concurs that codes and standards should be included to more accurately reflect realistic potential energy efficiency gains, but not as a driver to increase the incremental annual saving rate which as noted above appears overly ambitious.

Finally, EPA's proposed regulation does not consider natural gas conservation programs. Many utilities around the country, and especially in Alliant Energy's service territory, have made significant investments in natural gas efficiency. This is all the more pertinent given that methane emissions are also tied to natural gas.

Building Block 4 Recommendations

The EPA's proposed energy efficiency approach presents many challenges that will be difficult to resolve in the final rule. EPA's methodology fails to sufficiently recognize early action for states and utility companies that have already supported robust energy efficiency programs. Energy efficiency would be better addressed as part of the state plan processes. A case-by-case evaluation of the potential for energy efficiency for each state should be included in the final guidelines. EPA should allow states to provide input to this assessment for the final goal computation, based on data and specific circumstances applicable to individual affected utility companies.

Alliant Energy recommends financial modeling related to the costs associated with its current energy efficiency program planning and the cost increases that will result to achieve the additional savings as recommended by EPA of 1.5% energy targets from 2019 – 2030. With such financial modeling, our company will have the ability to evaluate budget

increases and thus costs to customers with increasing its energy efficiency targets to the required 1.5%.

With respect to energy-efficiency measure lifetime, Alliant Energy recommends the EPA address these issues by revising its methodology to assume a slower decline in savings over time and by adding a degree of persistence of savings after a measure “burn out.”

In regard to compliance, Alliant Energy recommends EPA consider allowing flexibility to modify the energy-efficiency programs proposed to comply with the Clean Power Plan over time, as utilities such as Alliant Energy modify current programs with state energy efficiency regulated cycles to account for changes in the market and available technology.

Alliant Energy also supports an approach that allows for three different nationally standardized EM&V procedures for well-established, moderately well-established, and less well-established energy efficiency technologies. But, we have concerns relative to new emerging technologies, which may be central to maintaining 1.0% or 1.5% of sales targets, and which may not be given a chance to develop and succeed if EM&V is too strict.

The EPA should also consider including codes and standards as a compliance option for meeting goals under Building Block 4. In addition, Alliant Energy recommends that EPA consider developing guidance surrounding EM&V and limitations or requirements for including codes and standards as a compliance option in state compliance plans.

Finally, it seems appropriate that natural gas savings and the associated emissions reductions be allowed as a compliance path. Alliant Energy recommends that EPA consider inclusion of natural gas programs as a compliance option in the final rule.

Interaction of building blocks and related impacts to technical assumptions

Under the CAA, the EPA's Section 111 assessment of BSER provides that the standards established are to *“reflect the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.”*

The EPA's Clean Power Plan as proposed fails to meet the CAA's criteria in that the BSER Building Blocks used to establish state-specific goals have not been adequately demonstrated as a “system” and do not factor in measures to account for the remaining useful lives of affected EGUs. In order to rectify this shortcoming, the EPA's final guidelines must consider the system dynamics of the power sector as the proposed BSER building

blocks realistically are not additive measures and in fact, maintain varying degrees of interdependency.

If NGCC units are redispatched to a capacity factor of 70%, as assumed by the EPA, the role of these units will essentially shift from load-following, intermediate resources to base load resources. However, the need for load-following resources will not be eliminated as a result of the rule. If anything, the need for load-following resources will increase due to the increase in renewable penetration assumed in Building Block 3. If NGCCs become base load resources, the intermediate load role will likely be taken up by a combination of coal units operating at reduced loads and/or simple cycle peaking units operating at increased capacity factors. This increased cycling and reduced coal unit capacity factors will in effect negate the technical feasibility of EPA's assumed Building Block 1 heat rate improvements by potentially resulting in degradation of efficiency gains.

To remedy this, the EPA's final guidelines cannot determine the levels for each Building Block in isolation. Rather, the EPA must not only consider the relative contribution of each Building Block holistically, it is also relevant to consider the order in which they are applied in the goal computation. For example, it makes no sense that EPA applied heat rate improvement in Block 1 then subsequently applied this lower CO₂ rate to reduce coal-fired generation in Block 2. Practically speaking, EPA should have applied Block 2 to increase NGCC dispatch then applied coal plant efficiency at the reduced load factors applicable to these units. Additional technical analyses is provided in EPRI's public comment submitted on October 20, 2014 (pages 29 - 35), demonstrating that since the EPA target rate is a fraction, i.e., lbs/MWh, the contribution of each building block to making up the target rate depends crucially on the order in which the building blocks are added.

Therefore, the EPA's final guidelines for the Clean Power Plan must consider the impact of the four BSER building blocks on the electric system as a whole, as well as, examine how the individual building blocks will interact with or affect the achievability of each other.

Alternative Goal Computation Accounting for Blocks 3 and 4

EPA's NODA published on October 30, 2014 provides another approach to the goal setting calculation that would further include accounting for displacement of fossil generation by renewable generation (Block 3) and energy efficiency (Block 4). The NODA seeks comment on alternative approaches whereby incremental renewables and energy efficiency would (1) be assumed to replace all 2012 steam generation and NGCC generation levels on a pro rata basis (i.e., in proportion to each generation type's historical generation) or (2) be assumed to displace fossil steam generation below 2012 levels first and then replace all gas-fired fossil generation pro rata.

Alliant Energy believes it would be inappropriate to adjust the EPA's proposed goal calculation to assume the displacement of fossil generation with energy provided by Blocks 3 and 4. First, EPA cannot assume that variable renewable generation and energy efficiency have equal capability in replacing base load power resources. Second, this poses significant risk to reliability because of the role that fossil-fuel generation supports in the interconnected bulk power system including: resource adequacy; load balancing, and supporting ancillary grid services for voltage and frequency response. Third, the EPA has not demonstrated that this qualifies as BSER, let alone is technically feasible.

For these reasons, Alliant Energy believes it would not be appropriate to treat Block 2 the same as Blocks 3 and 4. Therefore, EPA's proposed approach in the NODA to calculate state goals should not assume incremental renewables and energy efficiency replace fossil generation using either methodology (pro-rata or prioritization).

Consideration of Remaining Useful Lives of Affected Sources

Further to the definition of BSER, the CAA explicitly provides that in promulgating a standard of performance under a 111(d) plan, the EPA *"shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies."* Consequently, a critical element will be that EPA's rules support continued operation of affected units throughout their remaining useful life at a sufficient capacity factor and cost that will not result in their premature retirement.

In the EPA's NODA, the agency requests comment on whether consistent with the BSER, the overall framework proposed includes sufficient flexibility with respect to adequate time for the implementation of emissions reduction strategies and the consideration of cost. As noted previously, a relevant concern with EPA's BSER approach is the interaction of Block 1 with Blocks 2 and 3. Shifting generation from existing coal-fired generation assets and requiring these units to operate at lower capacities or as load-following units is counter-intuitive to achieving and sustaining heat rate improvements. While EPA has provided flexibility in the compliance measures allowed, these options may not be sufficient or cost-effective compared to greater achievement of heat rate improvements at existing coal-fired units when operated as designed to provide for base load power at higher capacity factors. Furthermore, the interim goals present challenges in the pace of this possible shift in generation resources potentially making it difficult to obtain regulatory approvals for heat rate improvements at existing coal-fired EGUs post-2020.

To that end, as proposed by EPA in the NODA, it would be reasonable to address these concerns by allowing state agencies to take into account the book life of the original coal-fired assets, as well as the book life of any major upgrades to the asset, such as major

pollution control retrofits. Alternatively, EPA could allow states to consider other measures, such as the depreciation schedule in lieu of the book life. Alliant Energy believes that state plans should be provided the flexibility and option to use the book life (or some other reasonable measure such as depreciation schedule) as the basis for the development of an alternative emissions glide path that would phase-out these assets in a manner that maximizes emissions reductions while reducing impacts to reliability or affordability. At a minimum, EPA's final rules must allow for states to consider the remaining useful life in demonstrating a request for a retirement off-ramp on an EGU-specific basis that could either revise the required emissions reductions or compliance deadline in the 111(d) plan.

EPA's final guidelines should exclude simple cycle turbines and peaking EGUs

EPA's proposed guidelines exempt simple cycle turbines and EGUs that support peak energy demands from the performance standards by exclusion of these units under Section §60.5795, which defines what affected EGUs must be addressed in a state plan. Specifically, the EPA's proposal considers an affected EGU subject to the 111(d) standards to include:

- *"A steam generating unit or IGCC that has a base load rating greater than 73 MW (250 MMBtu/h) heat input of fossil fuel (either alone or in combination with any other fuel) and was constructed for the purpose of supplying, [and supplies], one-third or more of its potential electric output and more than 219,000 MWh net-electric output to a utility distribution system on an annual basis."* [Proposed §60.5795(b)(1)]
- *"A stationary combustion that has a base load rating greater than 73 MW (250 MMBtu/h), was constructed for the purpose of supplying, [and supplies], one-third or more of its potential electric output and more than 219,000 MWh net-electrical output to a utility distribution system on a 3 year rolling average basis, combusts fossil fuel for more than 10.0 percent of the heat input during a 3 year rolling average basis and combusts over 90% natural gas on a heat input basis on a 3 year rolling average basis."* [Proposed §60.5795(b)(2)]

Where EPA defines base load rating to mean:

- *"The maximum amount of heat input (fuel) that a steam generating unit can combust on a steady state basis, as determined by the physical design and characteristics of the steam generating unit at ISO conditions. For a stationary combustion turbine, base load rating means 100 percent of the design heat input capacity of the simple cycle portion of the stationary combustion turbine at ISO conditions (heat input from duct burners is not included)."* [Proposed §60.5820]

Stationary simple cycle turbines and peaking EGUs operate differently than the other units covered by the Clean Power Plan proposal, which are generally used to serve base load or intermediate demand. Simple cycle turbines and peaking EGUs, in contrast, generally operate much less often (and thus have lower CO₂ emissions) and are almost exclusively used to meet limited-duration increases in demand or emergency or “black-start” capability rather than base or intermediate load requirements. Since these units operate less often, it is inappropriate and unreasonable to include simple cycle and peaking EGUs as affected sources subject to compliance under the Clean Power Plan. Therefore, Alliant Energy recommends that EPA’s final guidelines maintain this exemption.

In addition, EPA should fix the drafting error in the proposed rule as noted above the words [and supplies] appear to have been omitted. EPA is proposing to use the same applicability for affected steam generating units and IGCCs as it proposed in the New Source Performance Standard (NSPS) issued on January 8, 2014 [see proposed §60.5509, Federal Register, Vol. 79, No. 5, p 1511]. EPA’s preamble states “The rationale for this proposal concerning applicability is the same as that for the January 8, 2014 proposal (see Fed. Reg. at 34854). The proposed New Unit NSPS includes the requirement that an affected steam generating unit or IGCC “sells the greater of 219,000 MWh per year and one-third of its potential electrical output to a utility distribution system...”. The EPA appears to have mistakenly omitted this [and supplies] criteria from the definition of affected steam generating units in the proposed regulatory text for the Clean Power Plan [see proposed §60.5795(b)(1), 79 Fed. Reg. at 34954]. Alliant Energy requests that the EPA to correct this drafting error in the final rule.

Errors in EPA's Baseline and Goal Computation Calculation

Alliant Energy has identified an error in the nameplate capacity used for WPL's Riverside Energy Center (ORIS ID Code 55641) located in Wisconsin for the Block 2 NGCC redispatch calculation. The EPA's original data and the revised corrected data are summarized in Table 8 below, the proposed rule applied a nameplate capacity of 695.7 MW and the correct value is 674.9 MW.

Table 8: Correction to EPA's Riverside Energy Center Nameplate			
Nameplate from EPA Proposed Rule			
Facility	Location	Equipment	Generator Nameplate (MW)
Riverside Energy Center	Beloit, WI	STG1	299.7
Riverside Energy Center	Beloit, WI	CTG1	198.0
Riverside Energy Center	Beloit, WI	CTG2	198.0
Total			695.7
Requested Revision from Current EIA860			
Facility	Location	Equipment	Generator Nameplate (MW)
Riverside Energy Center	Beloit, WI	STG1	277.1
Riverside Energy Center	Beloit, WI	CTG1	198.9
Riverside Energy Center	Beloit, WI	CTG2	198.9
Total			674.9

As noted above, Alliant Energy does not recommend use of NGCC nameplate capacities for the Block 2 calculation. Rather than use the nameplate rating of NGCCs in EPA's calculation of the energy that would be produced by the operation of NGCCs at a capacity factor of 70%, the EPA should use the demonstrated net capacity at which the units can actually operate. However, if the EPA does not alter its original approach, Alliant Energy requests correction of the nameplate rating used for WPL's Riverside Energy Center.

Errors in EPA's Regulatory Impact Analysis compliance modeling

Alliant Energy requests that EPA update its compliance demonstration IPM input data to remove incorrect assumptions regarding our EGUs. Alliant Energy reviewed EPA's 2025 "Base Case" modeling results, which predict electric system operation without the Clean Power Plan, and EPA's 2025 "Policy Case" modeling results, which predict electric system operation with the Clean Power Plan. Even though the IPM output is intended to be an illustrative example of potential compliance and does not impose any requirements associated with the Clean Power Plan, Alliant Energy believes the modeling should be as accurate as possible since the results are being used to predict costs and benefits of the rule proposal. The incorrect assumptions and corrections that we request are provided in Appendix F of this submission.

VIII. Support for Flexible Compliance

Maintain proposed compliance options for either emissions rate or mass cap

The EPA's November 13, 2014 TSD, entitled "Translation of the Clean Power Plan Emission Rate-Based CO₂ Goals to Mass-Based Equivalents," outlines two possible methods for performing a rate-to-mass translation, and includes mass-based equivalents for each state. The first approach produces mass-based equivalents that apply only to existing affected fossil fuel-fired sources. The second approach produces mass equivalents that are inclusive of emissions from existing affected and new fossil fuel-fired sources. According to the TSD, the example mass-based equivalents are not mandatory mass-based emission limits that states must meet, and are not intended to be interpreted as a cap on emissions. The mass equivalents are illustrations of two potential options that states may choose to adopt if they choose to use a mass-based form of the state goal.

Alliant Energy supports that EPA's final guidelines maintain either the emissions rate or mass-based compliance options. However, additional clarification is necessary beyond that provided in the TSD to better define the mass-based approach. Of primary concern, the mass-based approach should not be more stringent than an emission rate approach. For example, Tables 9 and 10 demonstrate that when comparing actual CO₂ mass emissions to the presumptive mass caps for existing units as listed in the TSD, this results in a larger percentage reduction at the state-level than what would be needed on an emissions rate basis. In addition, the mass cap with new units is also more stringent for Iowa compared to the emission rate final goal.

Table 9: EPA Proposed Clean Power Plan Emission Rate Goals			
State	EPA 2012 EGU Portfolio Rate That Could Apply to Goal (lb/MWh Net)	Final Goal: 2030 and thereafter (lb/MWh Net)	% Reduction (2012 EGU Portfolio Rate to Final Goal)
Iowa	1,552	1,301	16%
Minnesota	1,470	873	41%
Wisconsin	1,827	1,203	34%
Source: U.S. Environmental Protection Agency, Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: Goal Computation, Appendix 5.			

Table 10: TSD Calculated Mass Cap Final Goals					
State	2012 CO2 (thousand metric tons)	Existing Units (thousand metric tons)	% Reduction	Existing & New Units (thousand metric tons)	% Reduction
Iowa	34,856	25,749	26%	28,496	18%
Minnesota	26,799	14,474	46%	17,218	36%
Wisconsin	39,579	25,275	36%	28,102	29%
Source: The 2012 CO2 emissions data taken from EPA's Air Markets Program Data reported CO2 emissions for Acid Rain program, http://ampd.epa.gov/ampd/QueryToolie.html .					

Furthermore, EPA's current TSD does not adequately consider demand growth. The existing source mass cap is developed relative to 2012 generation levels and fails to consider demand growth at all. The mass cap that factors in new units is generically based on the Energy Information Administration's (EIA's) 2013 Annual Energy Outlook (AEO2013) where EPA assigns an annual average growth rate based on regional demand projections in order to calculate projections of future demand. In practice, electric utilities would not apply a generic approach in the development of integrated resource plans. This approach also fails to consider the interconnected nature of the bulk power system by assuming all increased demand growth would be provided solely by new NGCCs. Alliant Energy recommends that EPA consider these additional factors when it issues its final guidelines and provide revised estimates of state-specific presumptive mass caps from those issued in the TSD. In addition, the proposed rule requires a state that elects to use mass-based goals rather than rate-based goals to produce a "reference case" forecast of generation by affected EGUs through 2030. This forecast would be done at the time a state's plan is prepared, and would determine the state's mass-based compliance goals for all compliance periods. Preparing an accurate forecast this far in advance would be extremely problematic.

Alliant Energy recommends that the EPA should provide "presumptive" translations of rate-based goals to mass-based goals for each state, because it would reduce uncertainty surrounding the initial development of mass caps by states. Along with these mass cap values, the EPA should also provide detailed guidance, including examples, on their proposed method for developing these using a reference case scenario. Based on their review, states should be allowed to either adopt the presumptive translation, or propose an alternative mass-based goal as part of the state plan process based on unique circumstances and local resource plans. In order to make a mass-based approach an attractive alternative to a rate-based approach, EPA should provide a process that allows states to adjust their mass-based goals factoring changes that occur after the generation projection is originally made with appropriate supporting justification.

Maintain plan options for either state-only or multi-state/regional approach

Alliant Energy believes that a broader multi-state approach could increase flexibility and be beneficial for our customers. Our company supports state-specific goals and compliance calculations with an approach that allows utilities to pursue multi-state or out-of-state solutions for managing carbon emissions. We further support the flexibility for plans to use emissions averaging or trading to achieve CO₂ performance goals.

Depending on the construct of a multi-state or regional approach, this could reduce the cost of compliance compared to a state-only approach. However, the EPA has suggested a regional approach under which states' individual rate-based goals would be replaced by a single blended regional goal that would be equal to the weighted average of the state goals. It seems unlikely that such an approach could receive support from states whose goals are less stringent than the regional weighted average. A regional approach more likely to secure support would allow states to retain their individual goals, but would provide for credit trading between the states as a compliance measure. Therefore, Alliant Energy supports that EPA's final guidelines should keep either the state-only or regional approach. In addition, there should not be a requirement for a blended regional goal if multiple states prefer to essentially trade along the margins. In particular, EPA should also state that an acceptable regional approach option would allow multiple states to retain their individual goals, while providing for trading between states of credits representing tons of emissions or megawatt-hours (MWh) of generation. EPA or another third party entity could provide a credit tracking system to be used by states wishing to participate.

Our company also recommends harmonization of the 111(d) plan submittal deadlines, whether the selected pathway is either state-only or a multi-state or regional approach. EPA's proposal allows a one-year extension for state-only plans and a two-year extension for regional plans. In all cases, the plan submission deadline should be no sooner than two years from EPA's issuance of the final guidelines. Alliant Energy believes that allowing for a single two-year deadline not only provides the minimal time necessary for state agencies to prepare plans, but also encourages better coordination and consideration of a possible multi-state or regional approach.

Maintain Three-Year Averaging Period for Final Goal

Under the EPA's proposed guidelines, each state must meet the final goal on a three calendar year rolling average starting January 1, 2030. While emissions averaging periods do not alleviate potential issues with or guarantee electrical reliability, this does provide some degree of flexibility for affected utilities to achieve the Clean Power Plan compliance requirements. There are many reasons that utilities experience fluctuations in operations

due to the inherent nature of electricity production and consequently variations in annual emissions quantities. Numerous factors could cause emissions to be higher or lower during a given year including, but not limited to weather conditions, source and availability of fuel supply, customer energy demand, generation dispatch and outages. Therefore, Alliant Energy recommends that EPA's final guidelines maintain at least the three-year averaging period for determination of compliance with the final goal.

Allow for broad interpretation of and ability to update eligible compliance measures

Alliant Energy supports broad flexibility to allow non-BSER measures for compliance (i.e., beyond the building blocks). All reductions in greenhouse gas emissions should be encouraged by EPA's final guidelines and our company recommends that EPA's approach allow including additional compliance options both within the electric sector (for example, distributed and customer owned generation and transmission and distribution 'T&D' efficiency improvements) and outside the electric sector (for example offset projects - such as natural gas energy efficiency, biogas methane reduction, or tree planting programs). Any actions to reduce greenhouse gas emissions should be available to include as long as a State can put in place protocols to measure, verify and enforce these additional compliance measures coupled with implementing appropriate accounting and tracking methodologies.

For example, Alliant Energy supports the consideration that EPA would give towards biomass as a compliance option. In particular, Wisconsin is a biomass-rich state, and there is interest in further developing the role of biomass, as a zero-carbon fuel, in generation (including potentially blending biomass with coal to achieve CO₂ reductions). The ability to co-fire biomass with fossil fuel, specifically coal, provides an additional opportunity for "inside the fence line" CO₂ emissions reduction. This could be an important compliance option at coal-fired units, including those in which utilities have invested to comply with environmental requirements such as MATS. Moreover, co-firing biomass could support the forestry and wood products industry across the State.

In addition, Alliant Energy supports the concept of additional credit for methane reduction from biomass-based generation such as agricultural digesters, as well as generation from landfill gas and wastewater treatment systems – each of which beneficially reduce methane emissions. However, our company recommends that the EPA support the development of a national standard for conversion of methane to CO₂ reduction for consistency. Otherwise each state could conceivably come up with distinct methods of calculating methane reduction credits.

Finally, another important flexibility that EPA should provide to affected sources in its final guidelines is the ability to update state plans with changes with respect to the mix and

amount of various compliance measures applied. This will encourage technological innovation and creativity in pursuing solutions that likely would result in more cost-effective and/or efficient carbon reductions.

Flexibility to include new NGCC units

EPA's Clean Power Plan must recognize the critical role of new natural gas-fired generation in supporting the transition to clean energy. In light of the interconnected nature of the bulk power system, it will be necessary to develop integrated resource plans that consider how new NGCC units can bridge this transition. This includes NGCC operation both to supply base load energy and also to provide important load balancing functions as additional coal-fired units retire and renewable resources are expanded.

EPA should clarify that states may average emissions from generating units that are not subject to regulation under Section 111(d) with emissions from affected EGUs for the purposes of calculating compliance. This would allow new NGCCs to be included in the state's compliance calculations under Section 111(d). Therefore, Alliant Energy recommends that EPA's final guidelines provide the option to include new NGCCs as a flexible compliance measure in state plans, while separately remaining subject to Section 111(b) emissions standards. However, the decision of whether to include new NGCCs should be left to the affected utility, based on a case-specific assessment of whether it would be advantageous to include as part of its 111(d) compliance determination.

IX. Ensure Reliability and Maintain Regional Dispatch to Balance Load at Least Cost

Ensure Reliability

EPA's proposed approach of establishing a dispatch-based mitigation goal that impacts other existing generation types without thorough consideration of the impacts to resource adequacy may significantly degrade reliability. In November 2014, NERC issued an initial reliability review entitled "*Potential Reliability Impacts of EPA's Proposed Clean Power Plan*" (http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential_Reliability_Impacts_of_EPA_Proposed_CPP_Final.pdf). This report outlines the need for additional evaluations of the bulk power system and the resulting impacts from EPA's Clean Power Plan including: resource adequacy concerns due to fossil-fired retirements and accelerated declines in reserve margins; transmission planning and timing constraints to related to building and integrating new infrastructure; changing resource mix including increased reliance on natural gas and renewable resources causing increased variability and

uncertainty to grid stability; and, the need for a reliability assurance mechanism that could allow for timing adjustments and granting extensions where there is a demonstrated reliability need.

Clearly, maintaining reliability of the grid is a critical element in the successful implementation of EPA's Clean Power Plan. Sufficient long-term reliability can be supported through resource planning; however, it is often a local event in daily market operations that impacts reliability. Understanding the integrated transmission and generation system, while recognizing the differences associated with generation assets, is important in assessing potential reliability impacts.

When looking at the proposed guidelines with a view of system reliability, the EPA's analyses using the IPM to evaluate the building blocks and whether goals are achievable, uses less robust data than data possessed by and used by the MISO. For example, MISO has performed studies of potential retirements and resulting resource adequacy due to the implementation of MATS. These studies have included information about firmness of interstate pipeline deliverability for gas-fired units, plans for replacement of units, and also consider the electrical location and network deliverability of units expected to be retired. In contrast, the IPM modeling used by EPA does not appear to consider any of these factors.

Alliant Energy believes there is a role for the RTOs/ISOs such as MISO and NERC to assist in modeling the impacts of the rule on electric reliability. The models used by the RTOs, ISOs, and NERC are more sophisticated for assessing electric system reliability than is the IPM model, and these organizations also have planning expertise that could promote a more robust analysis. System modeling should also evaluate what reserves are available under this rule and understand what resources will be called on to meet those reserves. If NGCC units are utilized more as base load resources, as suggested in EPA's Building Block 2, they may not be available to ramp up quickly to fill a need for energy. Simple cycle units may be required to fill that need because coal-fired units are not as able to respond quickly to load changes given their base load characteristics.

For Alliant Energy, a MISO-based analysis would be able to better evaluate how this rule could change the operation EGUs from a reliability perspective. Therefore, the EPA's final guidelines should provide states sufficient time to conduct these reliability studies in order to support proper planning with plenty of lead time to plan, site, construct, and begin operations of supporting generation resources or infrastructure if system changes are deemed necessary.

Finally, a safety valve is needed to ensure the reliability, safety, and security of the electrical system. The safety valve should align with MISO procedures, which define levels

of progressive action necessary to ensure reliability during abnormal operating conditions or emergency situations (such as a weather event). As stated above, reliability events more frequently occur on a local level compared to a broader MISO level. It will be important to recognize and potentially have exception periods or off-ramps for local reliability events. For example, issues with grid congestion may dictate operation of one generation resource over another in order to ensure power delivery at the local level. IPL's Dubuque generating station has been called to run numerous times over the past few years to run for voltage support as local transmission work was being completed.

The ability for electric utilities to support and restore power during emergency situations should also be recognized by EPA due to the unpredictable nature and timing of these events. In particular, these issues could be more prevalent or have more significant impacts earlier in the implementation of EPA's proposed Clean Power Plan. Therefore, Alliant Energy recommends that EPA's final guidelines allow for the inclusion of a safety valve during this transition period as the system adapts to changing generation and transmission infrastructure. This will provide a critical buffer enabling the resolution of reliability issues with minimal power disruption or unnecessary costs.

Maintain Regional Dispatch

Alliant Energy's utilities participate in MISO's energy and operating reserves market. The MISO market is designed to commit and dispatch the most cost-effective deliverable generating unit to provide energy to customers. This wholesale market has proven to be very effective in providing low cost energy to our utility customers. In view of this, Alliant Energy supports the continued use of economic dispatch to achieve the desired CO₂ emissions reductions. Therefore, Alliant Energy emphasizes that EPA's final guidelines must recognize the need for energy markets to continue to solve for dispatch to minimize impacts. More specifically, we support continued use of an economic dispatch solution that continues to allow utility companies to maintain control for decisions related to their operation and environmental compliance.

The EPA's final guidelines must consider that close collaboration will be necessary by energy regulators, ISOs/RTOs, and state environmental protection and natural resource agencies. Implementation of EPA's Clean Power Plan is expected to result in changes to energy market rules. Consequently, EPA's final guidelines must take into account that federal and state energy regulators and ISOs/RTOs also will require sufficient planning time to support this transition while continuing to assure affordability, reliability and regional dispatch.

X. Pace and Timing of Reductions

Given the magnitude of concerns noted in our company comments, it is apparent that the EPA's proposed interim goals do not provide sufficient time to prepare for compliance.

- EPA approval of state plans may be no sooner than 2017 for state-only and possibly as late as 2019 for multi-state regional plans.
- EPA's proposal does not adequately factor in the schedule required to deploy additional energy resources and infrastructure (ex. heat rate improvements, additional renewables, natural gas pipeline, transmission).
- EPA's proposal must contemplate potential impacts to regional energy markets and allow for a transition that avoids impacts to reliability and minimizes costs by not disrupting economic dispatch.
- A realistic effective date for initial compliance requirements is needed to allow for permitting, regulatory approvals, project development and possible construction.

Alliant Energy believes that it is imperative for EPA's final rules to provide for planning certainty in order to provide our utility customers with reliable and affordable service. The EPA's Clean Power Plan should recognize the nature of electric utilities investments that have long-term energy resource planning cycles covering 10-15 year outlooks, broad system costs and long-lived asset lives.

EPA's NODA includes discussion of options to address near-term compliance concerns including (1) allowing states to credit early CO₂ emissions reductions; and, (2) phasing in the increased dispatch of NGCC units for Block 2 over time rather than as of 2020 based on needed expansion of natural gas pipeline infrastructure. While Alliant Energy agrees that both of these options can help to temper the near-term compliance challenges, even if implemented together these are not sufficient to fully address the issue.

With regard to the suggestion that early reductions could be used as a way to ease the 2020–2029 glide path, the EPA requests comment on a range of possible approaches to this type of credit for early action (79 FR 34918–34919). In the first approach, full accounting of emission reductions continues to begin in 2020, but credit could be received for certain pre-2020 reductions that could be used to reduce the amount of reductions needed during the 2020–2029 period. The EPA also requests comment in the proposed rule on a second approach in which states could choose early (e.g., pre-2020) implementation of state goal requirements, which could provide states with the ability to achieve the same amount of

overall emission reductions but do so by making some reductions earlier (79 FR 34919). Alliant Energy believes that these approaches are too limited and should be expanded to better represent the progress already made by electric utilities to reduce CO₂ from the power sector and to encourage further early reductions pre-2020. In addition, for the second option, while it is more realistic to assume that existing NGCCs are ramped up over time, this suggestion still leaves significant uncertainty of how this schedule would be developed and if the revised approach will offer sufficient time. Furthermore, this approach does not appear to recognize that certain existing NGCCs may have design, operational, or regulatory restrictions that need to be factored into the schedule.

Therefore, Alliant Energy recommends that the EPA's final guidelines should eliminate the interim goal (2020-2029) and allow States to establish a glide path to the 2030 final goal to allow adequate time to reliably achieve compliance. At a minimum, the EPA's Clean Power Plan should not require reductions any sooner than five years from EPA's final approval of a state plan (or regional plan).

Appendix A: IPL Clean Power Plan Units

IPL Electric Generating Units and Status under EPA's Proposed Clean Power Plan					
Name of Power Plant	Location	Type	Primary Dispatch Type (a)	Clean Power Plan Unit	Approximate Nameplate Capacity in MW
Ottumwa Generating Station (Unit 1) (b)	Ottumwa, IA	Coal	BL	Yes	348
Lansing Generating Station (Unit 4)	Lansing, IA	Coal	BL	Yes	275
M.L. Kapp Generating Station (Unit 2) (g)	Clinton, IA	Coal	BL	Yes	218
Burlington Generating Station (Unit 1)	Burlington, IA	Coal	BL	Yes	212
George Neal Generating Station (Unit 4) (c)	Sioux City, IA	Coal	BL	Yes	165
George Neal Generating Station (Unit 3) (d)	Sioux City, IA	Coal	BL	Yes	154
Prairie Creek Generating Station (Units 1-2) (f)	Cedar Rapids, IA	Coal	BL	No	15
Prairie Creek Generating Station (Units 3-4) (f)	Cedar Rapids, IA	Coal	BL	Yes	198
Louisa Generating Station (Unit 1) (e)	Louisa, IA	Coal	BL	Yes	32
Emery Generating Station (Units 1-3)	Mason City, IA	Gas	IN	Yes	603
Fox Lake Generating Station (Units 1,3) (h)	Sherburn, MN	Gas	IN	Yes	93
Sutherland Generating Station (Units 1,3) (h)	Marshalltown, IA	Gas	IN	Yes	119
Dubuque Generating Station (Units 3-4) (h)	Dubuque, IA	Gas	IN	Yes	66
Burlington Combustion Turbines (Units 1-4) (h)	Burlington, IA	Gas	PK	No	79
Grinnell Combustion Turbines (Units 1-2) (h)	Grinnell, IA	Gas	PK	No	48
Red Cedar Combustion Turbine (Unit 1)	Cedar Rapids, IA	Gas	PK	No	23
Marshalltown Combustion Turbines (Units 1-3)	Marshalltown, IA	Oil	PK	No	189
Lime Creek Combustion Turbines (Units 1-2)	Mason City, IA	Oil	PK	No	90
Centerville Combustion Turbines (Units 1-2) (h)	Centerville, IA	Oil	PK	No	54
Diesel Stations (9 Units) (h)	Iowa and Minnesota	Oil	PK	No	16
Whispering Willow - East (121 Units) (i)	Franklin Co., IA	Wind	IN	No	200
Total generating capacity					3,197
Notes: a) Base load (BL) are designed for nearly continuous operation at or near full capacity to provide the system base load. Intermediate (IN) follow system load changes with frequent starts and curtailments of output during low demand. Peak (PK) are generally low efficiency, quick response units that run primarily when there is high demand. b) Represents IPL's 48% ownership interest in this 726 MW (nameplate capacity) / 644 MW (generating capacity) EGU, which is operated by IPL. c) Represents IPL's 25.695% ownership interest in this 641 MW (nameplate capacity) / 623 MW (generating capacity) EGU, which is operated by MidAmerican Energy Company. d) Represents IPL's 28% ownership interest in this 550 MW (nameplate capacity) / 486 MW (generating capacity) EGU, which is operated by MidAmerican. e) Represents IPL's 4% ownership interest in this 810 MW (nameplate capacity) / 725 MW (generating capacity) EGU, which is operated by MidAmerican. f) Prairie Creek Units 3 and 4 only are subject to the Clean Power Plan. g) These EGUs are expected to switch from coal to natural gas as the primary fuel type in 2015. h) These EGUs are expected to be retired prior to 2020. i) Wind generation is not directly regulated under EPA's proposed Clean Power Plan, however is potentially affected to the extent it is used as a compliance measure in state plans.					

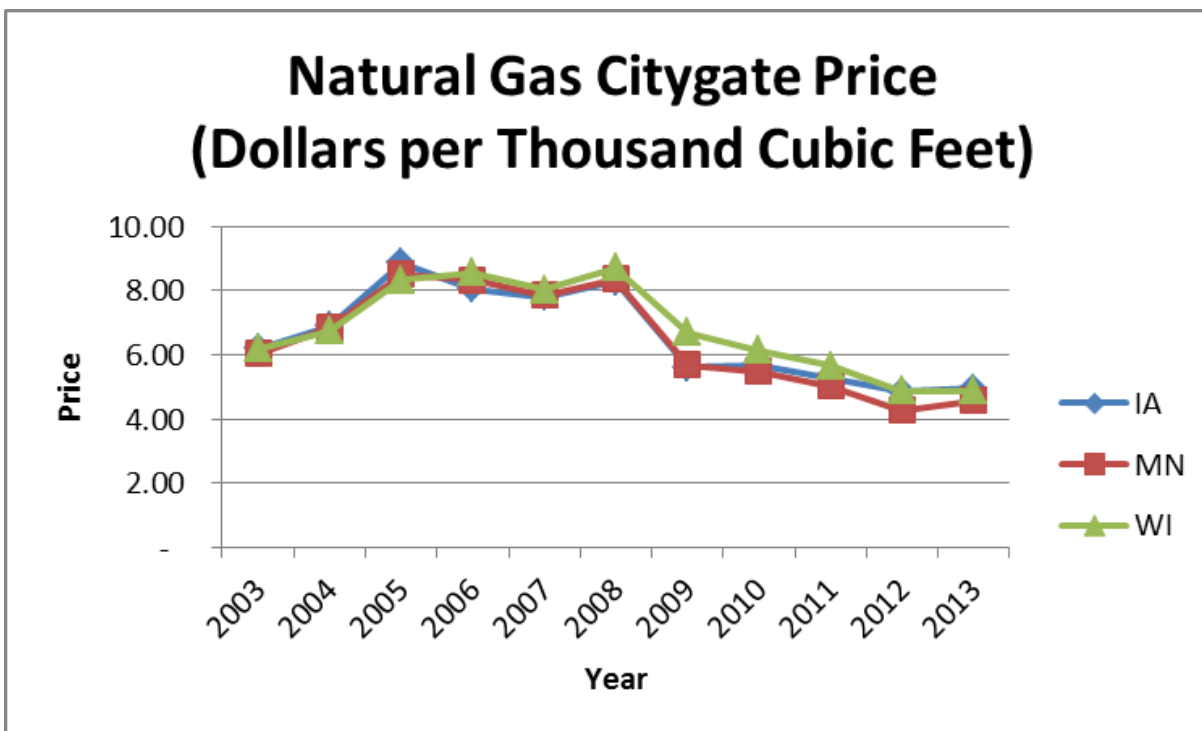
Appendix B: WPL Clean Power Plan Units

WPL Electric Generating Units and Status under EPA's Proposed Clean Power Plan					
Name of Power Plant	Location	Type	Primary Dispatch Type (a)	Clean Power Plan Unit	Approximate Nameplate Capacity in MW (h)
Columbia Energy Center (Units 1-2) (b)	Portage, WI	Coal	BL	Yes	473
Edgewater Generating Station (Unit 5)	Sheboygan, WI	Coal	BL	Yes	380
Edgewater Generating Station (Unit 4) (c) (f)	Sheboygan, WI	Coal	BL	Yes	225
Nelson Dewey Generating Station (Units 1-2) (e)	Cassville, WI	Coal	BL	Yes	200
Edgewater Generating Station (Unit 3) (e)	Sheboygan, WI	Coal	IN	Yes	60
Riverside Energy Center (Units 1-3)	Beloit, WI	Gas	IN	Yes	675
Neenah Energy Facility (Units 1-2)	Neenah, WI	Gas	PK	No	371
South Fond du Lac Combustion Turbines (2 Units) (d)	Fond du Lac, WI	Gas	PK	No	191
Rock River Combustion Turbines (Units 3-6)	Beloit, WI	Gas	PK	No	169
Sheepskin Combustion Turbine (Unit 1)	Edgerton, WI	Gas	PK	No	42
Bent Tree - Phase I (122 Units) (g)	Freeborn Co., MN	Wind	IN	No	201
Cedar Ridge (41 Units) (g)	Fond du Lac Co., WI	Wind	IN	No	68
Prairie du Sac Hydro Plant (8 Units)	Prairie du Sac, WI	Hydro	IN	No	31
Kilbourn Hydro Plant (4 Units)	Wisconsin Dells, WI	Hydro	IN	No	10
Total generating capacity					3,096
Notes: a) Base load (BL) are designed for nearly continuous operation at or near full capacity to provide the system base load. Intermediate (IN) follow system load changes with frequent starts and curtailments of output during low demand. Peak (PK) are generally low efficiency, quick response units that run primarily when there is high demand. b) Represents WPL's 46.2% ownership interest in this 1,023 MW (nameplate capacity) / 1,091 MW (generating capacity) EGU, which is operated by WPL. c) Represents WPL's 68.2% ownership interest in this 330 MW (nameplate capacity) / 309 MW (generating capacity) EGU, which is operated by WPL. d) Represents Units 2 and 3, which WPL owns. WPL also operates South Fond du Lac Combustion Turbines Units 1 and 4. e) These EGUs are expected to be retired prior to 2020. f) This EGU is expected to be retired, refueled, or repowered prior to 2020. g) Wind generation is not directly regulated under EPA's proposed Clean Power Plan, however is potentially affected to the extent it is used as a compliance measure in state plans. h) Alliant Energy's non-regulated business owns Sheboygan Falls, a 347 MW, simple-cycle, natural gas-fired EGU near Sheboygan Falls, Wisconsin, which is leased to WPL for an initial period of 20 years ending in 2025.					

Appendix C: Natural Gas Prices

Natural Gas Citygate Price (Dollars per Thousand Cubic Feet)			
Year	Iowa	Minnesota	Wisconsin
2003	6.19	6.04	6.18
2004	6.89	6.84	6.74
2005	8.88	8.52	8.35
2006	8.07	8.35	8.57
2007	7.80	7.87	8.04
2008	8.28	8.37	8.71
2009	5.62	5.68	6.70
2010	5.69	5.48	6.14
2011	5.27	5.04	5.65
2012	4.84	4.26	4.88
2013	4.95	4.58	4.88

Data Reference: U.S. Energy Information Agency Natural Gas Prices
http://www.eia.gov/dnav/ng/ng_pri_sum_dc_u_nus_m.htm



Appendix D: Building Block 1 - Heat Rate Improvement Supporting Documentation on Work Practices, Degradation, Load and Cycling

In general, heat rate improvement opportunities are very dependent on the original design of the electric generating unit. Other relevant factors include the size and age of the unit as well as coal variation and consistency of fuel quality. Heat rate and the impact of heat rate improvements will vary along the load curve for each electric generation unit. Production at partial loads requires the majority of plant equipment to operate below design, or most efficient levels. Improvements that result in reducing heat rate at a high load point may result in marginal or negative improvement at a lower load point. Thus, the average heat rate improvement will be less than the heat rate reported at the high load point depending on the units' capacity factor.

Almost all forms of heat rate improvement will degrade over time, requiring maintenance efforts, such as a turbine overhaul, to return the unit to near design conditions. A steam turbine's performance can degrade approximately 0.3 to 0.5 % per year. Various forms of wear, chemical deposits, loss of surface finish on components, etc. will erode the efficiency of plant equipment. Active maintenance efforts such as replacing parts, chemically removing deposits, machining surfaces, repairing coatings, etc. are required to restore the equipment to near new performance. Maintenance activities usually require the equipment to be taken out of service, curtailing production. Companies such as Alliant Energy will typically schedule such maintenance at intervals that balance the cost of lost production and maintenance with the gains of the restored efficiency and production.

The heat rate improvement proposed by the EPA is an average improvement of 6%, and presumably includes all forms of heat rate improvements across the operating range and across a fleet. To attain the proposed average improvement will require cumulative heat rate improvements in excess of 6%. Yet, opportunities to incorporate improvements resulting in a total of 6% or greater heat rate improvement at one load point are unusual given the current engineering solutions available and are even less likely to carry that level of improvement across the load curve. A significant driver of average heat rate is the capacity factor of a unit. It is further unlikely that an average heat rate improvement of 6% can be achieved and sustained on coal units that may be dispatched at reduced load points in the future in order to meet an emission reduction goal.

EPA's assumed 6% improvement further fails to recognize that many of the "best work practices" that were attributed with up to 4% of this potential heat rate improvement have already been implemented by utility companies. Alliant Energy has already incorporated the majority of work practices that EPA references from the Sargent and Lundy report issued in 2009 titled *"Coal-Fired Power Plant Heat Rate Reductions"*, which are further summarized below for our company's large coal-fired units that would be subject to the Clean Power Plan.

- Neural Network: Upgraded Digital Control Systems (DCS) are applied to the five units, with some further including combustion optimization modules or optical combustion monitoring.
- Sootblowers: Daily sootblowing programs at all units; four units further augmented by intelligent systems using thermal sensors across the water tubes or supplemented by operator indicators and instrumentation to focus on sections needing cleaning including measurement of heat transfer.
- Air heater and duct leakage control: four units have programs in place to minimize air leakage and initiate air preheater glycol coil cleaning based on pressure differential; one unit has applied use of new or improved seals to limit leakage to 6%.
- Condenser Cleaning: all units conduct analysis to determine optimal frequency for cleaning for maintaining efficiency.
- Cycle Isolation: four units have programs to improve valve maintenance to limit internal process and external leakage in steam water cycle.
- Boiler feedpump: all units have programs in place to maintain feedpumps.
- Cooling Tower Advance Packing: used at the two units with towers; in addition one unit has decreased pressure drop and fan load.
- FGD system modifications: dry scrubber system currently installed for two units uses Variable-Frequency Drives on slurry feed and blowdown pumps.
- SCR system modifications: installations at two units currently have secondary air as dilution air for the ammonia vaporizer, yielding auxiliary power saving by avoiding the use of electric heating.
- ESP system modifications – four units maintain an energy management system.

Further explanation of the impact of load and unit cycling on the effective heat rate achieved is further provided below.

Heat Rate Differential at Varying Load Points

The heat rate of a coal fired generating unit will vary according to the load on the unit. Heat rate is highest (least efficient) at the minimum load point at which the unit can safely operate. At low load points, many plant components are operating below their most efficient design points. Heat rate decreases (improves) in a non-linear fashion as the load increases until it reaches an optimal load point. This point is an inflection point on the curve and may align with the “cruise” rating of the unit. The heat rate commonly increases slightly as load approaches the maximum capability of the unit. Heat rate at the lowest load can be 15% to 20% higher than optimum load point. Heat rate may vary by small amounts (approximately 2 or 3 %) at load points slightly higher or lower than the optimum load point. Figures D-1 and D-2 below show representative curves of heat rate relative to load for two coal-fired electric generating units.

These figures demonstrate the significance of load changes on the overall efficiency of electric generating units. In order to achieve the greatest heat rate improvement and least CO₂ emissions, the EPA's Clean Power Plan should allow coal-fired units to operate at optimal load. EPA's proposed rule does not factor in the interaction of the Building Blocks and could result in coal-fired units operating at reduced loads.

Figure D-1: Representative Curve of Heat Rate Relative to Load

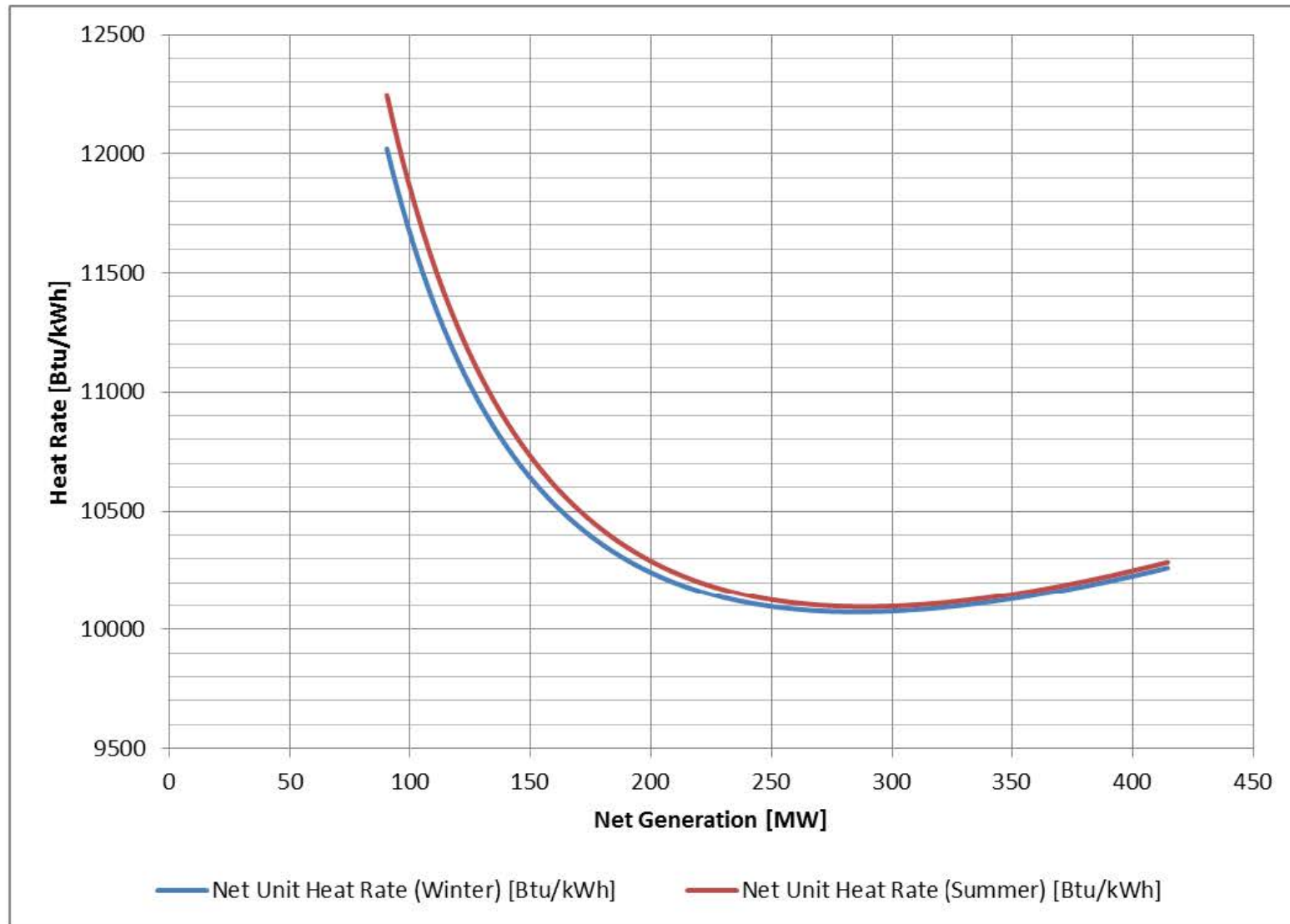
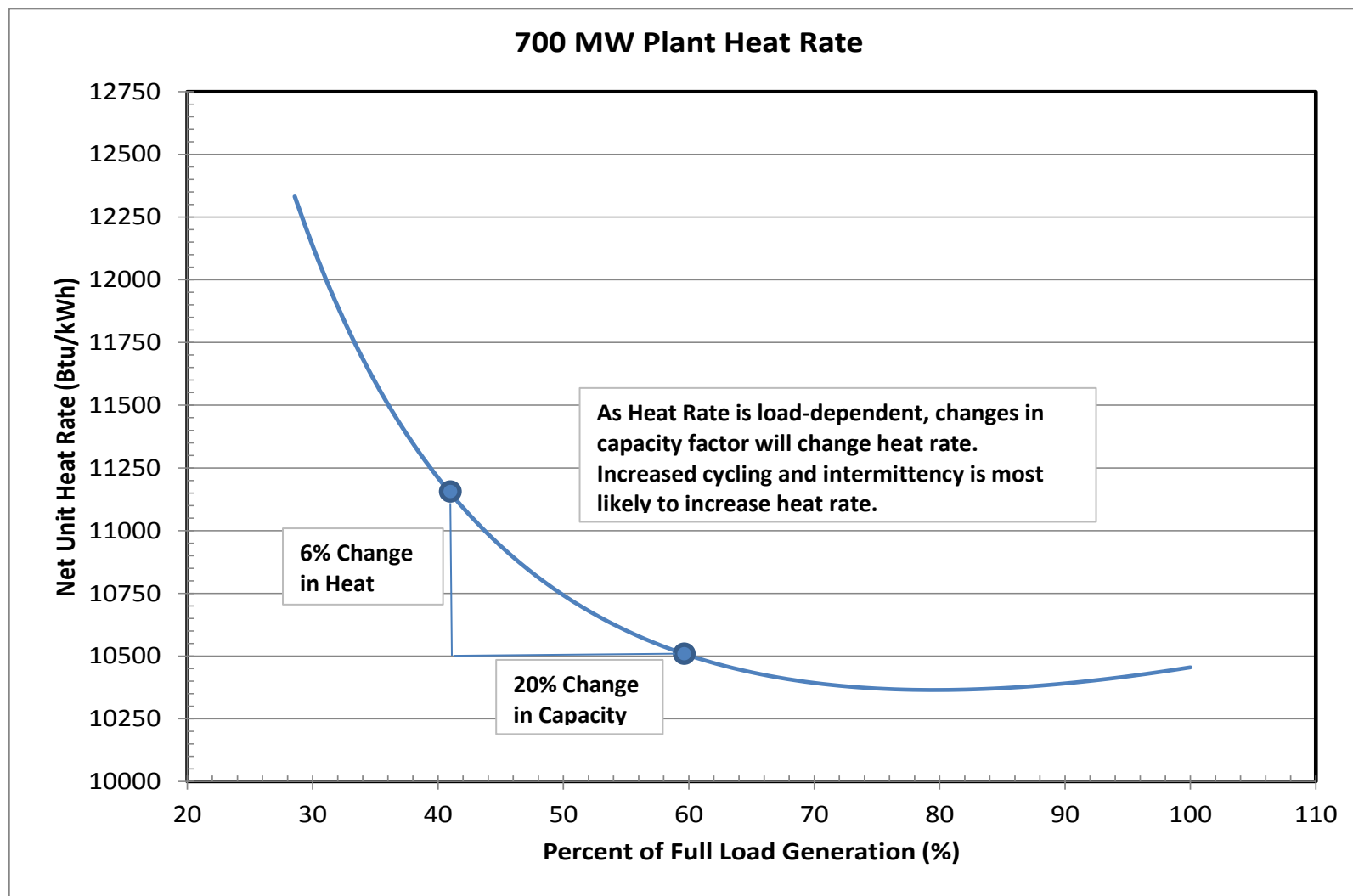


Figure D-2: Representative Curve of Heat Rate Relative to Load



Impact of Cycling on Heat Rate

Extra energy is required to move a unit from low to higher loads to overcome inertia in the system. The more frequently a unit must move up and down the load curve, the more excess energy will be required to produce the desired load and thus the unit will be less efficient on average. In addition, cycling typically requires operating the unit at load points away from the maximum efficiency point. The impact of cycling is best illustrated with a simulated dispatch profile. The figures below help to depict the average (heat input weighted) heat rate for a number of scenarios.

Figure D-3 depicts bimodal operation, which means a load distribution where about 50% of the operation is at minimum load, and 50% of the operation is at maximum load with minimal time spent at any other loads. Figure D-4 considers the heat rate impacts at varying levels of load dispatch – actual, minimum, full, and mid-load (single and bimodal).

In Figure D-4, Year 2008 uses the actual dispatch profile from 2008. Full load assumes a net generation average of 400 MWn. Minimum load assumes net generation of 100 MWn. Single mode 62.5% capacity factor assumes that the plant is base loaded at 250 MWn. Bimodal 62.5% capacity factor assumes that the plant operates 50% of the time at maximum load and 50% of the time at minimum load for an average capacity factor of 62.5%.

Accordingly, as shown in Figure D-4, heat rate is the highest (least efficient) both when operating at low load and when cycling affects mid-load operations in bimodal mode. Therefore, in order to achieve the greatest heat rate improvement and least CO2 emissions, the EPA's Clean Power Plan should minimize cycling for coal-fired units.

Figure D-3: Single Mode versus Bimodal Operation

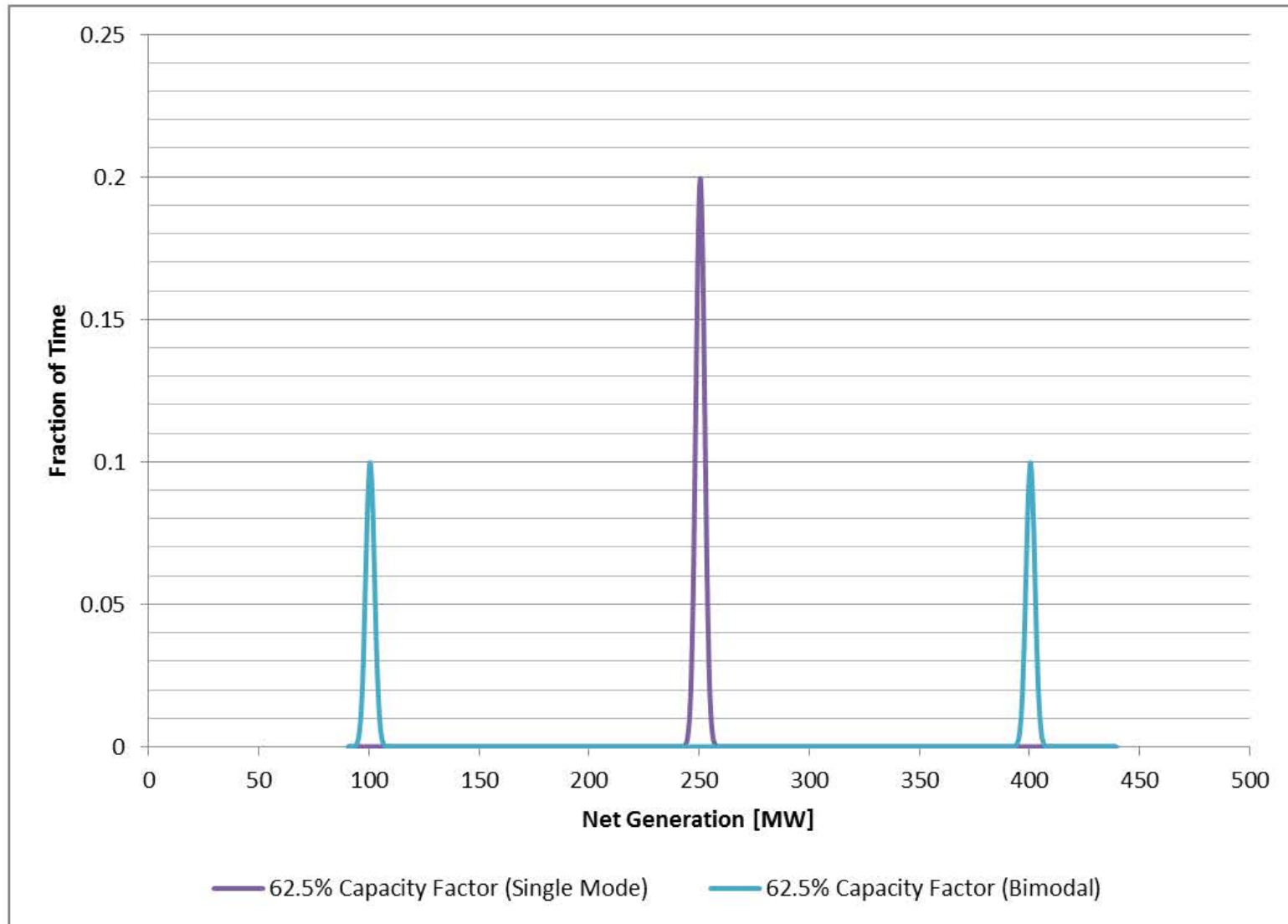
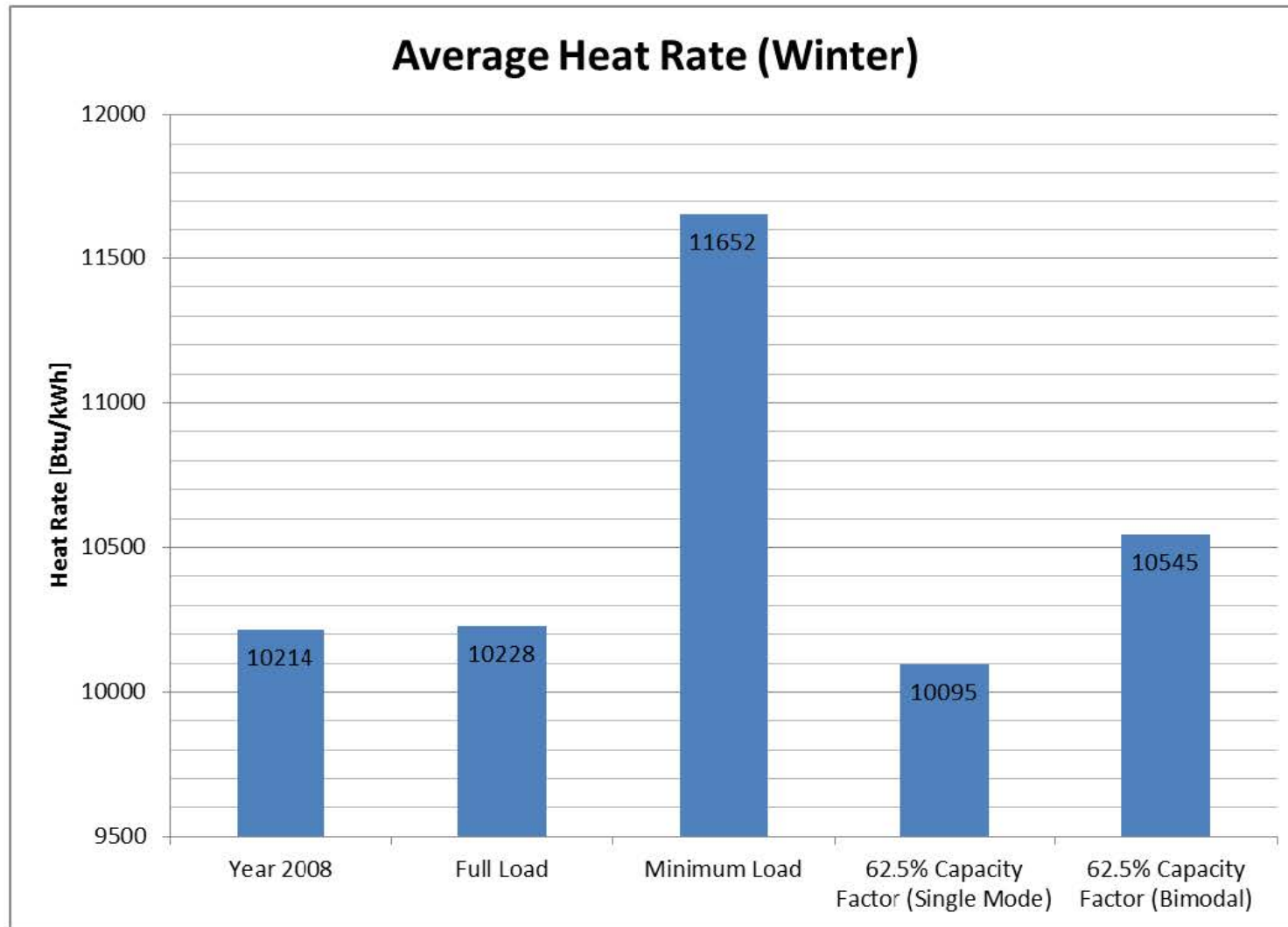


Figure D-4: Heat Rate at Varying Dispatch Levels



Appendix E: Building Block 3 – Typical Wind Development Schedule

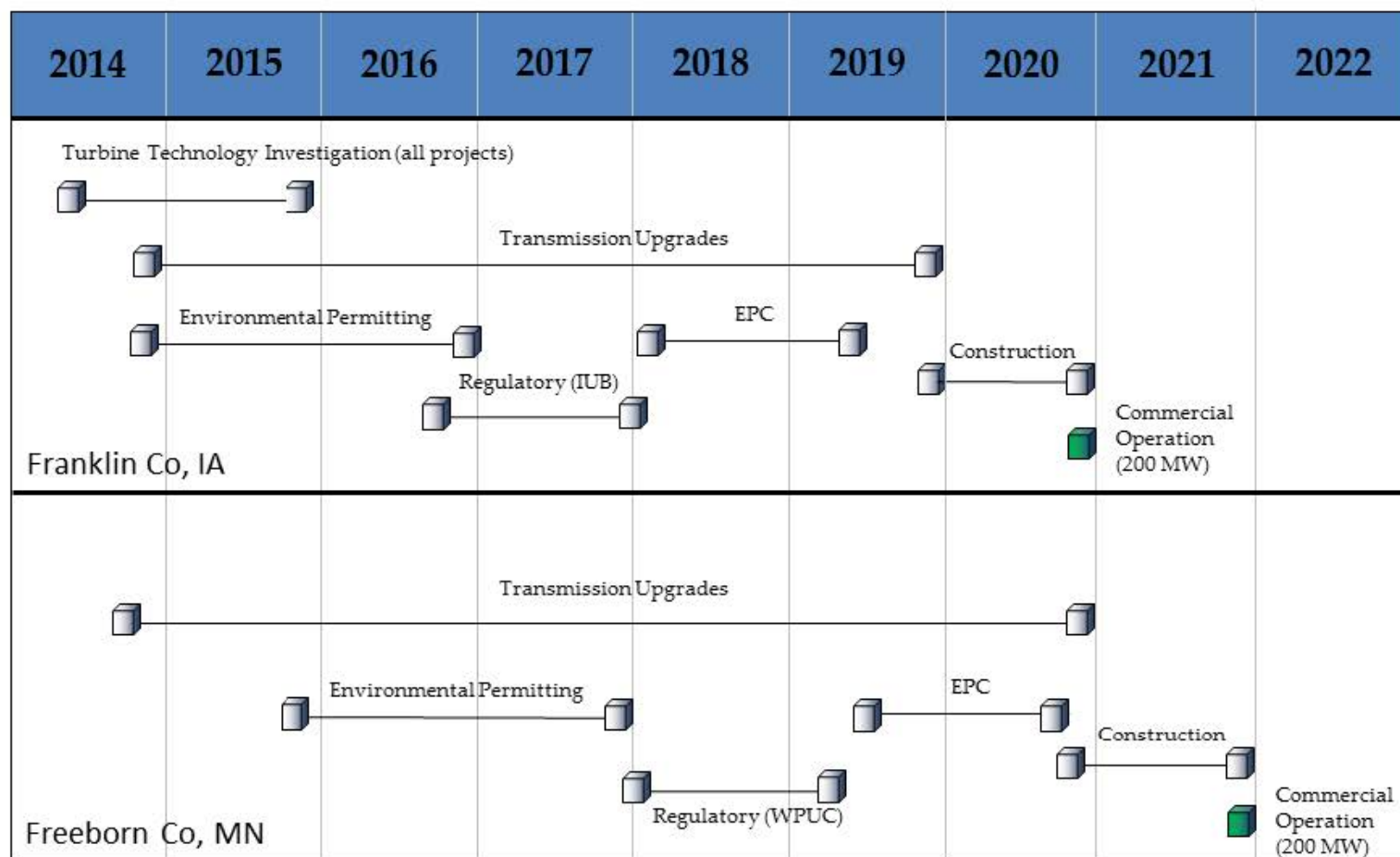
The time period for wind development from the initiation of siting to commercial operation date (COD) is between six to eight years. This date may be impacted by development in different states (states where landowners are not friendly to wind, or states that have more stringent siting criteria).

The main driver of the need to start wind development well in advance of the COD is as follows:

- In the MISO footprint, there is a large amount of wind development, which has led to transmission congestion and difficulty in reliability modeling.
- The current time to move through the MISO transmission queue is between 2-5 years.
- The output of models is the ability to enter into a Generator Interconnect Agreement and the network upgrades that will allow full output of the wind asset.
- Due to the uncertainty in the queue time if wind is needed on our system, we need to enter into the queue sooner rather than later to ensure full output.

Figure E-1 below depicts the anticipated wind development schedule for Alliant Energy's existing sites including Franklin County Wind Farm and Bent Tree Wind Farm, respectively.

Figure E-1: Wind Development Schedule
(Existing Sites)



Appendix F: Corrections to EPA IPM Modeling

Unit(s)	Issue Summary
Multiple Units – Missing Pollution Control Equipment	EPA's Base Case and Policy Case modeling results are missing pollution control equipment for the following facilities: 1. Edgewater 5 – A dry scrubber is scheduled to begin operation in 2017; however, it is not included in the IPM modeling. 2. Emery Station – A Selective Catalytic Reduction (SCR) is currently installed on this unit; however, it is not included in the IPM modeling. 3. Lansing 4 – A dry scrubber is scheduled to begin operation in 2015; however, it is not included in the IPM modeling. 4. Ottumwa – Activated Carbon Injection (ACI) will be utilized by the end of 2014; however, this is not reflected by the IPM modeling. 5. Prairie Creek 3 & 4 – ACI will be utilized on these units by the end of 2014; however, this is not reflected by the IPM modeling. 6. Riverside Energy Center – A SCR is currently installed on this unit; however, it is not included in the IPM modeling.
Columbia 1 & 2	EPA's Policy Case modeling results predict both of these units will retire by 2025. Given the flexibility in the proposed Clean Power Plan, Alliant Energy believes that its Tier 1 coal-fired units, including Columbia 1 & 2, will continue to operate as reliable sources of electric generation. Alliant Energy does not currently have any plans to retire these units by 2025.
Edgewater 5	EPA's Base Case and Policy Case modeling results predict this unit will operate with a 3.6% and 0.9% capacity factor, respectively. This is very inconsistent with past operation of this unit, which typically has a capacity factor of 70% or greater. Given the flexibility in the proposed Clean Power Plan, Alliant Energy believes that its Tier 1 coal-fired units, including Edgewater 5, will continue to operate as reliable sources of electric generation with a capacity factor well above those predicted by the IPM modeling.
Marshalltown Combustion Turbines 1 - 3	EPA's Base Case and Policy Case modeling results show incorrect fuel types for these units. Contingent upon and concurrent with the new Marshalltown Natural Gas Combined Cycle Facility, the fuel source for these units will be natural gas only.
M.L. Kapp 2	EPA's Base Case and Policy Case modeling results both assumed this unit would install mercury control and dry sorbent injection (DSI). In addition, EPA's Policy Case modeling results assumed this unit would undertake a heat rate improvement project. Alliant Energy does not plan to make these changes at this unit because it announced on January 3, 2013 that this unit will be switching to natural gas in 2015.
New Marshalltown Generating Station	EPA's Base Case and Policy Case modeling results both do not included Alliant Energy's new Marshalltown NGCC facility located in Marshalltown, Iowa. Construction began on this facility in June 2014 and operations are scheduled to begin in 2017. This facility will consist of two combustion turbines and a combined cycle steam generator with a combined nominal capacity of 650 MW.
Prairie Creek 3 & 4	EPA's Base Case modeling results predict both of these units will retire by 2025. EPA's Policy Case modeling results predict Prairie Creek 3 will retire by 2025. Given the flexibility in the proposed Clean Power Plan, Alliant Energy believes these units will continue to operate as reliable sources of electric generation. Alliant Energy does not currently have any plans to retire these units by 2025.
Sutherland 3	EPA's Base Case and Policy Case modeling results both assumed this unit would install mercury control and DSI. In addition, EPA's Policy Case modeling results assumed this unit would undertake a heat rate improvement project. Furthermore, EPA's Base Case and Policy Case modeling results both assumed this unit would be fueled by coal in 2025. These are all incorrect assumptions because Alliant Energy switched this unit from coal to natural gas in 2012. In addition, Alliant Energy is planning to retire this unit by December 31, 2017, so this unit should not be included in EPA's 2025 Base Case or Policy Case modeling results.